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ヒューマンサービスとは「人を援助する」「支援する」上で直面する社会的課題を映し出す言葉であり、社会福祉分野、医療・看護分野、心のケアにかかわる心理臨床分野、長寿社会のヘルスプロモーション分野、育児や保育などの家族支援分野、生涯学習時代に対応した教育、雇用流動化に対応したキャリア開発分野など、ヒューマンサービスと総称できる領域が急速に拡大している。

ヒューマンサービス分野の研究はその方法が科学的であれば、国際的に通用する分野であり、共同の試みによって、より発展することが期待される。

そこで本学会では、ヒューマンサービスに関する科学的な研究・実践活動を通じ、日本を始めアジアのヒューマンサービス分野の進歩・発展に寄与することを目的としている。

The word 'Human Services' is used when someone faces social challenges for 'help' or 'support' people.

Human Services' is expanding rapidly its area such as field of social welfare, medical・nursing, psychology clinical related mental care, health promotion for aging society, assist family for infant and child care, special supporting education corresponding to vocational education, education support sector corresponding to era of lifelong learning and fluidization of employment corresponding to the area of career development.

Human Services area, if its research methods are scientific, is internationally accepted and greater development is expected by collaborative research which is performed by multinational and multi-profession.

This journal aims to contribute to the progress and development of Asian Human Services.

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ORIGINAL ARTICLE

The Managerial Tasks and Coping Strategies of Community Social Service Provider: The Case of Jeju National University Sorieoulim Music Mentoring Center

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ABSTRACT

What are the tasks for improving the effects of community social service provision, and how should we solve these? This study approaches the question with the case analysis of Jeju National University Sorieoulim Music Mentoring Center. Considered as the top community social service provider, Sorieoulim started the music mentoring service for adolescents since 2009. They are currently facing managerial tasks caused by the open service registration system and the emergence of similar services, including recruitment of new service users and competent music teachers, service provision in remote communities, and profitability improvement. In effort to address these management issues, Sorieoulim is implementing various coping strategies, such as rural area service expansion, public relations improvement, alliance expansion, pay raise, motivation increase, cost reduction, and revenue diversification.

This paper shows the following conclusion, implication and suggestion:

●The dynamic capability for transforming resources and managerial abilities has a positive effect in coping with rapidly changing environments.

●The resource-based view can be applied to small social service providers and the managerial ability is a more important determinant in performance improvement.

●A new policy that ensures quality service through a service expense increase, stricter registration requirements, and a proper evaluation system for all community social service providers is required.

< Key-words >

Community social service, music mentoring service, resource-based view, dynamic capability, managerial ability

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I. Introduction

In 2007, the Ministry of Health and Welfare in Korea introduced a social service electronic voucher system providing welfare services to elders and disabled. The next year, it expanded to a total of six social services including a home medical care service and a community social service. According to the 2012 statistics, about 56,000 people have been hired from 4,580 service providers and 879.6 billion Korean won (KRW) worth of welfare services are being offered to around 655,000 people (www.socialservice.or.kr).

With its 900 billion KRW budget, the Ministry of Health and Welfare of Korea aims to create jobs for the socially vulnerable group, strengthen consumer choice, build a suitable environment for service quality enhancement, and improve the efficiency and transparency of social service providers. In order to achieve these, the Ministry of Health and Welfare conducts social service quality evaluations at least once in three years, for which they study quality management system, evaluation standards and index of community social service providers (Choi et al., 2013). Most of their studies examine social service as a whole. These macroscopic researches are significant in that they propose relevant government policies for increasing social service provision effects, however, they are limited in demonstrating ways to improve the effectiveness of the service offered by social service providers (www.khwis.or.kr). Although the service provision effect is largely influenced by the actual social service providers, there is little research on what kinds of environmental changes the service providers face or how they should react to such changes to improve their business effect.

In this paper, we examine the problems and solutions the social service provider encounters from the example of a specific community social service program that reflects the characteristics of Jeju Province named Jeju National University Sorieoulim Music Mentoring Center (hereinafter referred to as 'Sorieoulim'), using resource-based view. The reason behind choosing Sorieoulim as the case model is because they are currently seeking effective and efficient approaches to social service provision as they struggle with changes surrounding their business environments. Sorieoulim is the first-ever organization to create and run a music mentoring service business model. Established in 2009, they are known to provide the best and largest music mentoring services in Jeju Province. In 2011, they ranked first nationwide in the social service area and won the best enterprise award in 2012 out of 800 organizations. However, the changed policy to an open registration system and a dramatic increase of competitors significantly decreased the number of service users and the profitability of Sorieoulim. There is a fair chance that similar phenomena will appear in other community social service providers which would lead to a decrease in the expected effects of social service businesses. Therefore, we aim to examine current managerial tasks and coping strategies of community social service providers in detail through the case analysis.

II . Theoretical Background and Case Analysis Model

In order to investigate the management problems and the appropriate solutions in providing community social service, a case analysis model based on the resource-based view can be drawn. We briefly introduce the theoretical background and derive a case analysis model (environmental changes → adjustments in resources and managerial ability → performance improvement).

1. Theoretical Background

Resource-based view sees firms as portfolio of distinctive resources and capabilities, and suggests that performance improvement is determined by the nature of strategic resources possessed and utilized by firms (Penrose, 1959; Barney, 1991; Newbert, 2007). A resource is an “asset or input to production (tangible or intangible) that an organization owns, controls or has access to on a semi-permanent basis” (Helfat & Peteraf, 2003). There are four categories of resources; financial (cash, retained earnings), physical (plant & equipment, geographic location), human (skills & individual abilities) and organizational (reporting structures, relationship, patent, brand value, reputation). Resources that are heterogeneous and immobile have a bigger impact on performance. If resources are valuable, rare, costly to imitate and organized to capture value, there is a greater possibility for a sustained competitive advantage (Barney, 1991). However, the resources alone are not enough to achieve good performance. Through managerial activities that secure and utilize these resources in an efficient and effective way, firms can increase their competitive advantage and performance (Sirmon et al., 2007; Holcomb et al., 2009). In particular, firms’ performance depends on dynamic capability (a kind of managerial ability) that adjusts and utilizes internal resources according to changes in environment (Teece, Pisano & Shuen, 1997; Zollo & Winter, 2002; Teece, 2007).

Managing resources is as important as having those resources (Penrose, 1959), in other words, it is critical to have a managerial ability as well as firms’ own resources (Holcomb et al., 2009). This is because performance is influenced not only by firms’ own resources, but also by managerial activities that improve resource productivity (Sirmon, Hitt, Ireland & Gilbert, 2011). Therefore, performance relies on managerial tasks resolving and resource management. The managerial activity of acquiring and utilizing resources for performance improvement is itself the process of solving main managerial tasks efficiently and effectively (Yoon, 2010).

2. Case Analysis Model

As demonstrated above, resource-based view can effectively analyze the process of solving main managerial tasks for performance. Recent studies also examine how performance is affected by managerial tasks and coping strategies in personnel, operation, financial, and marketing managements based on resource-based view

(Barbero et al., 2011; Runyan, Huddleston & Swinny, 2007; Yoon, 2010). Community social service providers also encounter various managerial tasks during service provision, and coping strategies are what determine their performances. Consequently, the determinants of community social service providers' performances can be analyzed using the resource-based view.

In order to enhance the service provision effect, community social service providers adjust their resource and management corresponding to the opportunities or threats that come from firms' environmental changes. In overcoming challenges resulted from environmental changes, they aim to maintain high quality services while acquiring and utilizing resources efficiently and effectively. In other words, community social service providers are responding to problems generated from changes in management environments through coping strategies that adjust resources and managerial abilities according to environmental changes. Figure 1 demonstrates a case analysis model derived from the above argument.

<p>Management Tasks Caused by Environmental Changes</p> <p>→ Coping Strategies Through Resources and Managerial Ability Adjustments</p> <p>→ Performance Enhancement</p>
<ul style="list-style-type: none"> ● What are the environmental changes that community social service providers currently face and what management tasks are caused by these? ● How do community social service providers adjust their resources and managerial abilities in attempts to solve the management tasks? ● How do such coping strategies influence community social service providers' performances?

Source: The authors

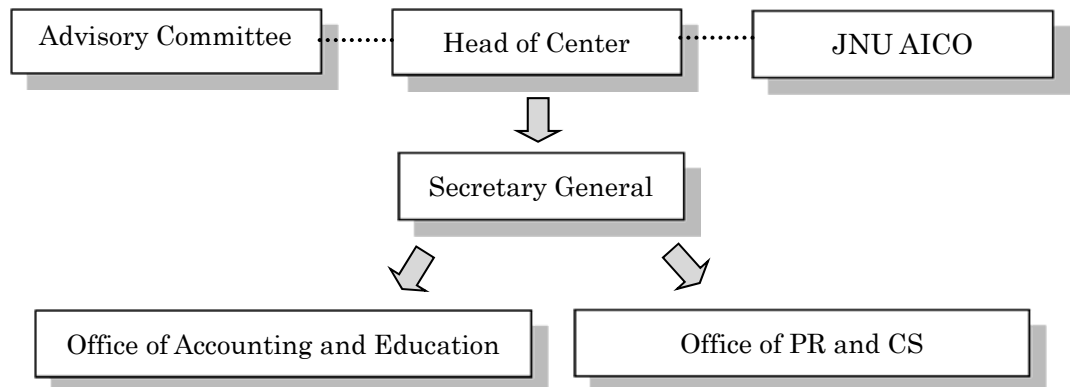
<Figure 1> Case Analysis Model

III. The Case of Sorieoulim Music Mentoring Center

1. Overview of Sorieoulim Music Mentoring Center

1) The Development

As the official affiliated organization of the Jeju Nat'l University Academic-Industrial Cooperation Office(AICO), Sorieoulim has been providing youth music mentoring services for 6 years since 2009. Youth music mentoring business provides music lessons (vocal, piano, violin, cello, flute, etc.) to adolescents of low-income families and remote communities. The music teachers visit each household in hopes to improve the creativity and emotional intelligence of their students through music mentoring. Currently, around 40 music-major graduates are hired as music mentors serving about 200 adolescents within Jeju Province, also contributing to an increase in college graduate employment rate.



Note: JNU AICO stands for Jeju Nat'l University Academic-Industrial Cooperation Office;
PR stands for Public Relations; CS stands for Customer Satisfaction

Source: Sorieoulim Internal Data

<Figure 2> Organization chart of Sorieoulim Music Mentoring Center

Sorieoulim is the first organization to develop and implement the music mentoring service business model. This led to a significant accomplishment in the community social service field. The music mentoring service business model, in which the music teachers visit students' houses and give one-on-one lessons, resulted in high student satisfaction. Also, this business model came into widespread use in Korea through benchmarking. As a result, Sorieoulim ranked first nationwide in 2011, and won the best enterprise award in 2012 out of 800 organizations funded by the Ministry of Health and Welfare. In 2014, they started providing music therapy for children with disabilities that helps improve their social competence, also for the first time in Korea.

<Table 1> History of Jeju Nat'l University Sorieoulim Music Mentoring Center

Date	Significant Event
June 2009	Selected as the Youth Development & Job Creation Center by the Ministry of Health and Welfare
Feb 2010	Changed to Community Social Service Provision Business
April 2010	Cooperation agreement with Jeju Residents Committee Council
Feb 2011	First place at national community social service providers evaluation
June 2011	Science music camp 'Everyday Science Class Brought to School'
Mar 2012	Cooperation agreement with Jeju Office of Education Support 'Wee Center' and School Maladjusted Students Education Center
April 2012	Cooperation agreement with JNU WISET Regional Agency of Jeju
May 2012	Best Enterprise Award at national community social service providers evaluation
Oct 2012	Cooperation agreement with Seoul Nat'l University Western Music Research Center
	Cooperation agreement with Jeju Regional Office Community Child Center
Feb 2014	Created and started music therapy program for children with disabilities
July 2014	Cooperation agreement with Mulmae Elementary School

Source: Sorieoulim Internal Data

2) The Business

The major business of Sorieoulim consists of private music lessons, music camps, visiting concerts, and free musical instrument lending services.

Private music lesson is a music mentoring service that focuses on developing creativity and emotional intelligence of the students. Music teachers visit each student's house and give a one-on-one lesson twice a week. About 610,000 people live in Jeju Province and half of the population are distributed across farming and fishing villages and mountainous regions. This makes it hard for the residents living in such rural areas to receive any cultural benefit. For these reasons, the service business model was designed for teachers to visit each household, instead of the typical lesson model where students must come to a designated place. An average number of students receiving this music mentoring service per month is 254 in 2009, 285 in 2010, 318 in 2011, 345 in 2012, 196 in 2013, and 184 in 2014 (Table 2). Among service users, about 30-35% are rural area residents.

The most popular music instruments that students learn are piano, violin, and flute, among 12 different instruments they can choose from. They can also learn singing and composing.

Music camps are held twice a year, where the music teachers (mentor), the students (mentee) and their families all gather to perform music concerts and learn the spirits of cooperation and communication. Major programs include special lectures, master classes, recreation, performances by professional musicians, and students' concerts. Since 2009, music camps have been held two to three times a year, with about 300 to 500 participants. Each camp costs about 7 to 8 million KRW.

Visiting concerts are held each month in remote and isolated communities, such as nursing homes, hospices, orphanages, and rural villages for which classical and popular music are performed by professional musicians. Each visiting concert costs 5 to 6 million KRW and about 30 to 40 audiences come to enjoy the music they normally don't have access to. There have been a total of 55 concerts and more than 2,100 people have successfully been served quality music for free by August 2014.

Free instrument lending service is directed towards people who are unable to afford a musical equipment. They can borrow desired instruments including violin, viola, cello, flute, clarinet, etc. for a year without charge. Currently, a total of 24 people are using this service.

In return for providing the above services, Sorieoulim Music Mentoring Center requires 200 thousand KRW worth of service charge per individual each month. 90% of the charge (180 thousand KRW) is funded by the government, and the rest 10% (20 thousand KRW) is paid by the service users. With a small charge, adolescents of low-income families can enjoy the various Sorieoulim music mentoring services including private lessons and music camps for one year.

<Table 2> The Number of Sorieoulim Staffs, Music Teachers and Service Users

Year	# of Staffs	# of Music Teachers	# of Service Users (monthly average)
2009	4	32	254
2010	4	66	285
2011	4	62	318
2012	5	59	345
2013	4	38	196
2014	4	35	184

Source: Sorieoulim Internal Data

<Table 3> Sorieoulim Revenue and Profitability

Year	Annual Revenue(million KRW)	Profitability (%)
2009	304.0	6.0
2010	683.5	10.0
2011	763.1	7.4
2012	879.3	6.5
2013	608.9	1.7
2014	132.8	N/A

Note: 2009 and 2014 each refer to 6 months (July–December) and 4 months (January–April) of service.

Source: Sorieoulim Internal Data

3) The Expected Effects

Sorieoulim aims for a cultural welfare realization, creativity and emotional intelligence development, youth job creation, and local economy activation.

Sorieoulim provides cultural services to remote and isolated communities who have a limited access to a cultural life through music lessons and concerts, in hopes to encourage their creativity and emotional intelligence. On an average of 250 to 350 service users a month receive the above cultural benefits. Most show high levels of satisfaction, especially in friendliness, service provision capability, service content, with an outstanding average evaluation score of 4.5 out of 5 points.

<Table 4> Satisfaction Survey

Year	Friendliness	Service Provision Capability	Service Content	Service Effect
2012	4.66	4.56	4.68	4.27
2013	4.48	4.42	4.40	4.35

Note: The scale is on a 5-point Likert scale.

Source: Sorieoulim Internal Data

By hiring music college graduates as music teachers, an average of 40 to 60 jobs are created and an income of 600 to 800 million KRW are contributed to Jeju Province local economy activation each year.

2. Environmental Changes and Managerial Tasks

1) Environmental Changes

The major environmental changes Sorieoulim encounters include changing from a service provider designation system to a service provider registration system, and an emergence of similar programs such as Dream Orchestra (Korean El Systema).

- Switching to a registration system: Since August 2012, the Ministry of Health and Welfare switched the service provider entry mode to a registration system from a designation system. A designation system is a closed system where the government selects a few service providers based on their capabilities. On the contrary, a registration system is an open system where anyone can start a service provider business if they meet certain standards. The main reason for this policy change was to encourage competition between service providers and improve service quality. As a result, the number of registered music mentoring service providers in Jeju Province have increased to eight in total. In case of Sorieoulim, the overheated competition between these service providers and a limited government budget led to a sharp decline in number of service users, from 345 in 2012 to 184 in 2014 (Table 2), as well as a 746.5 million KRW worth of drop in annual revenue (Table 3).

- Emergence of similar services: 'Dream Orchestra' by the Ministry of Culture & Tourism and 'Afterschool Activities' by the Ministry of Education have newly appeared in the service provision market. Consequently, a significant number of music mentoring service users and music teachers have moved to these service providers. These services have a competitive advantage to music mentoring services, in that group teaching, compared to private teaching, increases profitability. Because service users are taught in groups of seven rather than one-on-one, Dream Orchestra doesn't need to hire as many teachers and is able to keep a higher wage than the music mentoring service.

2) Managerial Tasks

Shifting from a designation system to a registration system and emerging of similar services resulted in a big environmental change, which led to new managerial tasks for Sorieoulim such as recruiting new service users and competent music teachers, and profit improvement.

- Recruiting new service users: As a consequence of the implementation of registration system and emergence of similar services in 2012, there has been a significant decrease in the number of new service users; from 215 in 2011 to 103 in 2014. A total number of service users also decreased from 318 in 2011 to 184 in 2014 (Table 2). As a result, Sorieoulim encounters a managerial task of maintaining the number of new services users above 200 each year.

- Maintaining competent music teachers: Due to a limited budget, it is difficult for Sorieoulim to recruit music teachers. Many teachers have moved to new similar service providers, because they offer a higher pay raise based on their large budget. The

number of music teachers has decreased from 62 in 2011 to 35 in 2014 (Table 2). In particular, music teachers are reluctant to mentoring students in remote areas because of a long drive and expenses that are not reimbursed. This resulted in a new managerial task of keeping competent music teachers needed to provide high-quality services to users.

- **Improving profit:** A huge decline in a number of new service users resulted in a deteriorating profitability of Sorieoulim. The profitability has dropped from 7.4% in 2011 to 1.7% in 2013 (Table 3). Sorieoulim faces another managerial task of improving profitability while maintaining current service quality.

3. Change in Resources and Managerial Ability and Coping Strategies

As demonstrated in theoretical background, the performance of community social service providers depends on resources and managerial abilities. The resources of Sorieoulim are easily imitable, making it very difficult to maintain its competitive advantage, especially with an environmental change. For example, music teachers, one of the core resources of Sorieoulim, are on a one-year contract, which allows them to easily move to other service providers. It is also difficult to sustain competitive advantage with the managerial ability of Sorieoulim. Although Sorieoulim ranked first nationwide in 2011, its managerial ability isn't as effective as when they first started the business, due to environmental changes caused by the open registration system and the appearance of similar services. Sorieoulim's business model now became easily imitable and its cost-effectiveness is lower compared to the group teaching business model.

Sorieoulim is making great efforts to adjust their resources and managerial abilities according to current environmental changes. Through acquiring and utilizing financial, physical, human, and organizational resources, Sorieoulim is implementing the following coping strategies.

1) Solution for recruiting new service users.

- **Expansion of services for potential service users in remote communities:** While other providers only focus on service users in urban areas such as Jeju city and Seogwipo city, Sorieoulim is recruiting new and potential service users from the remote and isolated communities that they have neglected. In order to encourage music teachers to approach students in remote areas, Sorieoulim is reimbursing transportation expenses and giving incentives with its internal financial resources.

- **Strengthening publicity and PR:** Through publishing their success stories and service differentiation, Sorieoulim is recruiting more new service users. For example, they publicize their difference in intangible resources such as visiting concerts and music camps that other service providers are unable to offer.

- **Alliances with service-related organizations:** Sorieoulim recruits more new service users with its managerial ability of building alliances with the communities in

need of music mentoring services, such as local community centers, orphanages, schools in rural areas, etc.

2) Solution for maintaining competent music teachers.

- Pay raise: Despite the fact that Sorieoulim is under a limited budget, recently there has been a wage raise to maintain and recruit competent music teachers as well as to enhance the service quality, based on their accumulated financial resources.
- Motivation Increase: In order to improve the capabilities of music teachers, Sorieoulim is training new teachers based on their 6-year teaching experiences and giving incentives to outstanding teachers based on their evaluations.

<Table 5> Sorieoulim Managerial Tasks and Coping Strategies

Environmental Changes	Switching to a registration system
	Emergence of similar services
Managerial Tasks	Recruiting new service users
	Maintaining competent music teachers
	Improving profit
Coping Strategies	Recruiting new service users: <ul style="list-style-type: none"> I . Expansion of services for potential service users in remote communities II . Strengthening publicity and public relations III. Alliances with service-related organizations
	Maintaining competent music teachers <ul style="list-style-type: none"> I . Pay raise II . Motivation increase
	Improving profit <ul style="list-style-type: none"> I . Cost reduction II . Revenue diversification

Source: The authors

3) Solution for improving profit.

- Cost reduction: Among programs within music camps and visiting concerts, Sorieoulim is transforming expensive programs to cost-effective programs. With this managerial ability, a 10% decrease of the total operating expense is expected.
- Revenue diversification: Based on their business experiences and know-hows, Sorieoulim is diversifying their business revenue through inventing new service programs, such as music therapy for children with disabilities and local school musical lessons.

4. Coping Strategies and Expected Performance Improvement

Sorieoulim has implemented various coping strategies based on resources and managerial ability adjustments in response for environmental changes caused by registration system and emergence of similar services. If these coping strategies work efficiently and effectively, Sorieoulim will be able to overcome current management crisis and maintain their service quality in the future.

Resource-based view considers resource and managerial ability as the determining factors of service providers' performance enhancement. Also, the extent to which these factors affect performance differs according to environmental changes. In other words, a larger dynamic capability –ability to adjust resources and managerial ability according to environmental changes– enhances performances (Teece et al., 1997; Teece, 2007; Winter, 2003). As shown in the case of Sorieoulim, major determinants of service provider's performance are also resources and managerial abilities, which must be flexible to environmental changes. The managerial tasks caused by environmental changes can be overcome with coping strategies based on dynamic capability, and result in a sustained growth of service providers.

IV. Considerations and Conclusions

1. Summary

What are the tasks for improving the effects of community social service provision, and how should we cope with these? This study approaches the question with the case of Jeju National University Sorieoulim Music Mentoring Center. Sorieoulim started the music mentoring service for adolescents since 2009 and ranked first nationwide in 2011, leading to a cultural welfare realization, creativity and emotional intelligence developments, youth job creation, and local economy activation. In 2013, Sorieoulim hired 42 music teachers, providing music mentoring services to 196 service users and making about 608.9 million KRW worth of revenues (Table 2 & Table 3). Due to a policy change to the open service registration system and the emergence of similar services, Sorieoulim currently faces managerial tasks of recruiting new service users and competent music teachers, providing services in remote communities, and improving profitability. In effort to address these management issues, Sorieoulim is implementing various coping strategies through adjustments in their resources and management, including rural area service expansion, public relations improvement, alliance expansion, pay raise, motivation increase, cost reduction, and revenue diversification. If successfully applied, Sorieoulim will continue to grow and maintain stable and high-quality service provision to Jeju Province. The management issues and solutions for community social service providers were examined based on resource-based view. The dynamic capability for transforming resources and management ability has a positive effect in coping with rapidly changing environments.

2. Theoretical Implications

The major determinant to the business growth of Sorieoulim seems to be the managerial ability rather than the resources. Management resources such as the office, staffs, and music teachers are easily available and imitable, which makes it difficult to sustain competitive advantage. In contrary, the managerial ability to first develop the music mentoring service business model and provide music mentoring services cannot be imitated in a short period of time. As a result, Sorieoulim could grow as the country's number one community social service provider. The managerial ability to utilize resources can be considered as the key factor to the growth of an organization.

The resource-based view that was used mainly to demonstrate big firms and corporations with abundant resources can now also be applied to small and medium-sized firms with limited resources (Barbero et al., 2011; Runyan, Huddleston & Swinny, 2007; Yoon, 2010). Based on the case analysis, this paper suggests that resource-based view can also explain the growth determining factors of small-sized community social service providers.

3. Policy Proposal

The Ministry of Health and Welfare aimed to enhance service quality and encourage competition among community social service providers through lowering the entry barrier. However, according to a research by Korea Institute for Industrial Economics and Trade (KIET), the registration system failed to stimulate effective competition or make a profit (Cho et al., 2014). This is because of strict instructions on budget management, such as the fixed percentage of wages and a limited target market composed of low-income households. The shift to registration system from designation system increased the number of community social service providers, but resulted in a decrease of profitability and service quality. In particular, similar service providers funded by Ministry of Education and the Ministry of Culture & Tourism overpopulated the music mentoring service market, leading to a profitability and service quality deterioration.

In order to mitigate the problems demonstrated above, we propose a policy that ensures quality services through an increase in service charges, and that imposes stricter requirements for registration. If we don't upgrade the current standards of only requiring 3 staffs and an office for a community social service provider registration, the service providers cannot achieve the economy of scale nor can it obtain the minimum profitability needed for a quality service.

We also propose another policy that allows the potential service users to easily compare and contrast service qualities from a proper evaluation method. For example, through adopting a rating system similar to hotel classifications, each service provider should be evaluated and rated accordingly so that it may help potential service users to gather information about service qualities.

4. Limitations and Avenues of Future Research

Since this paper is an exploratory study based on a one-case analysis, we need to conduct research on various other cases in order to obtain a higher external validity.

For further research, the ways to compensate for the limited amount of resources and managerial abilities of community social service providers should be studied. For example, acquiring appropriate management resources through environmental networking in a cost-effective way should be examined.

As a government funded business, community social service providers are largely affected by the government policies. This calls for a research on a long-term survival and growth of community social service providers, such as a study on becoming a social enterprise without relying on a government budget.

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ORIGINAL ARTICLE

Effects of pointing movements on visuospatial working memory

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ABSTRACT

Results of several studies indicate that pointing movements can interfere with visuospatial working memory (VSWM). The interference effect of movements of pointing to target locations is explained as attributable to failure of the appropriate use of retrieval strategies. This study further investigated the effects of pointing movements on VSWM performance, particularly addressing retrieval strategies. 28 participants (17 women, 11 men; *M* age = 23.0 yr, range = 21–29) were administered a VSWM task based on the Corsi blocks task, but modified to make it difficult for participants to use efficient retrieval strategies such as chunking or forming global visual images. Participants were required to recall the locations of targets in forward and backward order. Three conditions with respect to encoding were tested: (a) In the target-pointing condition, participants were required to point to the target locations. (b) In the no-pointing condition, participants were required only to view the presentation of targets. (c) In the irrelevant condition, participants were required to point to irrelevant locations. Significant differences were observed among the conditions and between the recall directions. However, performance when pointing to the target locations was not reduced compared to that achieved when viewing the presentation of targets. Results of this study support the view that the interference effect of pointing movements to the target locations derives from failure of the appropriate use of efficient retrieval strategies. Results also suggest that the effects of pointing movements on VSWM performance are task-dependent.

<Key-words>

Spatial memory, action, memory strategies, encoding, retrieval

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I . Introduction

Working memory is related to the capacity of maintaining and processing goal-related information simultaneously ¹⁾. Working memory has been implicated as playing a crucially important role in everyday cognition tasks ²⁾. Although several working memory models have been proposed, the most influential model is Baddeley's multi-component model ^{3,4)}. In that model, working memory is assumed to be divided into four subsystems. The visuospatial sketchpad, a subsystem responsible for temporarily maintaining and manipulating visuospatial information (visuospatial working memory, VSWM), is assumed to operate at the interface between vision, attention, and action ⁵⁾.

Within the scope of VSWM and action, many studies have examined the impact of action on VSWM. Some of the studies, although they are few, have indicated that action can facilitate VSWM performance. For example, Chum et al. ⁶⁾ showed that pointing movements to target locations facilitated recognition performance in a VSWM task. That facilitatory effect was interpreted as attributable to increased spatial-based perceptual selection by action or increased egocentric coding, or both.

Results of several studies have shown that action can interfere with VSWM. Some of the studies demonstrated that performance in a VSWM task is reduced by concurrent tapping or pointing to irrelevant locations ⁷⁻⁹⁾. These interference effects are explainable as attributable to shifts of spatial attention by tapping or pointing movements during encoding. Furthermore, even movements of pointing to relevant locations can interfere with VSWM. Rossi-Arnaud et al. ¹⁰⁾ investigated the effects of movements of pointing to the target locations on VSWM performance in a free recall task. In their study, participants were required to remember the target locations while pointing to them or viewing them. Results show an interference effect of pointing movements: The recall accuracy was significantly better when passively viewing presentations of the targets than pointing to them under certain conditions. The finding was explained as follows: pointing movements to the target locations prevented the development and the use of efficient retrieval strategies such as parsing the configurations into chunks ¹¹⁾, and forming global visual images ¹²⁾. However, given that both facilitatory and interference effects of pointing movements were observed by Dodd & Shumborski ¹³⁾, the impact of action, particularly that of pointing movements on VSWM, remains controversial.

According to an explanation by Rossi-Arnaud et al. ¹⁰⁾, when considering the effects of pointing movements, whether a person can use efficient retrieval strategies such as chunking and forming global visual images is extremely important. Therefore, under such circumstances that the use of efficient retrieval strategies is always restricted, no interference effects are expected to be observed for pointing movements to the target locations on VSWM performance. Pointing movements might increase VSWM under such circumstances. This study was undertaken to investigate the effects of pointing movements on VSWM performance under different circumstances.

II. Method

Participants

A total of 28 adults (17 women, 11 men; $M_{age} = 23.0$ yr, range = 21–29) volunteered to participate in the experiment. All participants were recruited from a university in Japan. All had normal or corrected-to-normal vision. Ethical approval for the study was obtained from the institutional review board. Informed consent was obtained from all participants before the experiment started. No participant showed any hesitancy during the experiment.

Materials

All participants were administered a VSWM task based on the Corsi blocks task¹⁴⁾, but it was modified particularly with respect to the stimulus array and presentation of a target stimulus to prevent participants from using efficient retrieval strategies. A stimulus array included black dots arranged in a five-column matrix (the number of rows varied across trials), which were concentrated only within one-third of the screen width. Subsequent to the presentation of the stimulus array, target dots appeared in red, one per row, by 1000 ms. Target dots were presented consistently from the bottom row to the top row. Consequently, using compact stimulus arrays and upward presentation of target stimulus, it was presumed to be difficult for participants to use efficient retrieval strategies such as chunking or forming global visual images.

Procedure

All participants were tested individually in a private room. Each participant was seated in front of a 15-inch monitor when performing the VSWM task. In the task, participants were asked to recall the locations of target dots in both forward and backward order.

Figure 1 presents an example of trial sequences. At the start of each trial, black dots were presented on the screen in a five-column matrix. Subsequently, target dots appeared in red, one per row, from the bottom row to the top row by 1000 ms. After a blank screen for 2000 ms, the original dot array was presented. Participants were required to indicate the locations of the target dots in forward or backward order by pointing to the screen.

The three conditions were tested in a within-subject design. The conditions were the following.

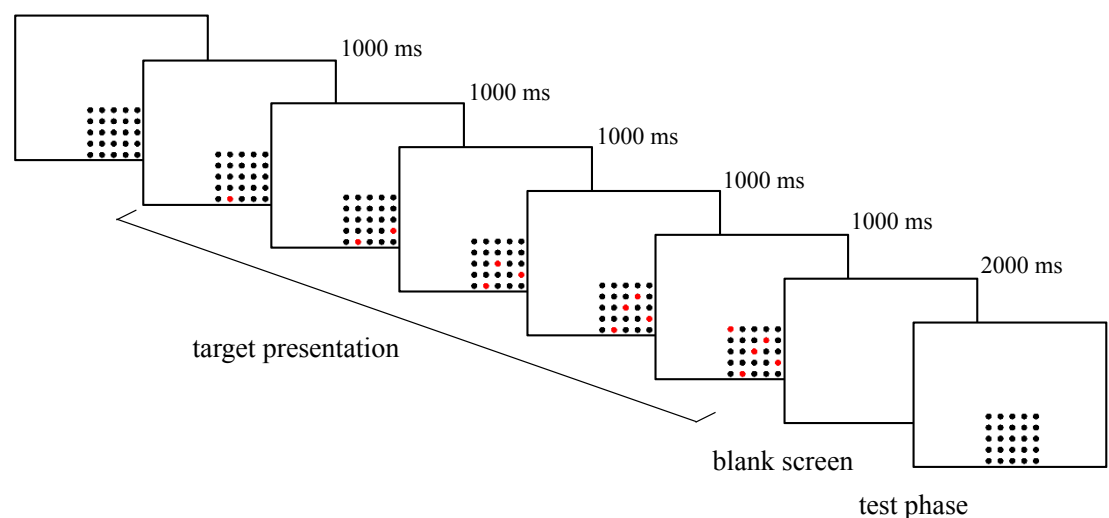
1. In the target-pointing condition (TP), participants were asked to remember the locations of target dots while pointing to them consecutively along with their appearance.
2. In the no-pointing condition (NP), participants were asked to remember the locations of target dots while viewing them.
3. In the irrelevant-pointing condition (IP), participants were asked to remember the

locations of target dots while pointing to the external sides of the rows from the bottom to the top consecutively along with their appearance of target dots.

In addition, articulatory suppression was induced in all conditions by asking participants to count aloud from 1 in ascending order along with their appearance of target dots. This procedure was intended to prevent phonological encoding.

Participants were tested in 6 blocks (3 conditions \times 2 recall directions). The order of the recall directions was counterbalanced. The order of the conditions was randomized among participants.

In all blocks, a self-terminating span procedure was used. Each block started with the five-row dot matrix, i.e., with a five-span trial. The rows were increased by one until the initial two trials of the same span length were consecutively failed. The rows were decreased by one if two trials failed consecutively. When a total of all trials at the same span length were recalled correctly, the block ended and the span length was scored.



<Figure1> Example of Trial Sequence: a Five-Span Trial.

III. Results

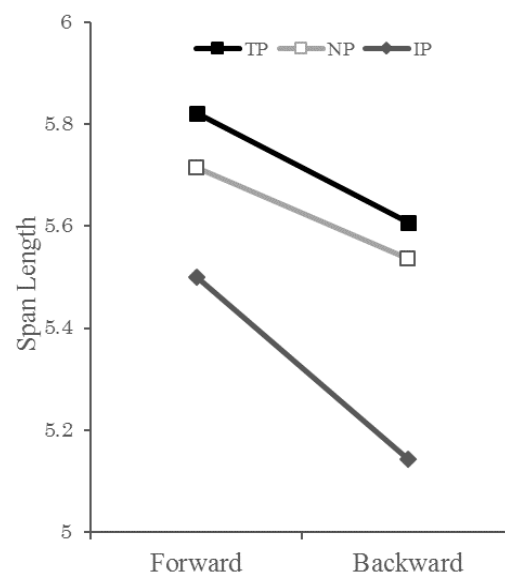
Table 1 presents means and standard deviations for span lengths in each condition. Figure 2 portrays mean span lengths in respective conditions. In all conditions, performance was better for forward recall than backward recall. In comparison between conditions, performance was slightly better in the target-pointing condition than in the

no-pointing condition. Performance in the irrelevant-pointing condition became worse than in the other conditions for both forward and backward recall.

A 3 (condition) \times 2 (recall direction) repeated measures ANOVA showed a significant main effect of condition ($F_{2, 54} = 3.38, p < .05; \eta^2_p = .11$) and recall direction ($F_{1, 27} = 4.66, p < .05; \eta^2_p = .15$), but the interaction was not significant ($F_{2, 54} = 0.37, ns; \eta^2_p = .01$). Post hoc Bonferroni tests revealed differences between the target-pointing condition and the irrelevant-pointing condition. Differences between the no-pointing condition and the irrelevant-pointing condition approached significance ($p = .06; p = .12$, respectively). No significant difference was found between the target-pointing condition and the no-pointing condition.

<Table 1> Means and Standard Deviations for Span Lengths in Respective Conditions

	TP		NP		IP	
	M	SD	M	SD	M	SD
Forward Recall	5.82	1.09	5.71	1.21	5.50	1.04
Backward Recall	5.61	1.10	5.54	1.10	5.14	0.89



<Figure 2> Mean Span Lengths in Respective Conditions.

IV. Discussion

This study was undertaken to investigate the effects of pointing movements on VSWM performance using a task in which the use of efficient retrieval strategies was always restricted. This study demonstrated that VSWM performance was reduced by concurrent pointing to the irrelevant locations (although the effect only approached significance), but

was not by concurrent pointing to the target locations. The former result is consistent with reported findings from earlier studies ⁷⁻⁹).

The latter is the main result of this study. As expected, pointing movements to the target locations did not have interference effects in a task where the use of efficient retrieval strategies such as chunking or formation of global visual images was always restricted. Therefore, the result appears to support the view that the interference effect of pointing movements to the target locations results from failure of the appropriate use of efficient retrieval strategies ¹⁰). Furthermore, VSWM performance was slightly better when pointing to the target locations than when viewing them for both forward and backward recall, although the difference was not statistically significant.

However, the present study has several methodological limitations. First, this study did not take account of other variables that might influence whether interference effects of pointing movements were observed. Although Rossi-Arnaud et al. ¹⁰) showed that pointing movements reduced VSWM performance when participants pointed to the target locations in the first block and when the shorter sequences were presented, the present study did not consider those variables. Second, the results demonstrated that the differences among the conditions were significant, but the differences in span length were small. Particularly, the interference effect of movements of pointing to irrelevant locations was found to be much smaller than effects reported in earlier studies ⁷⁻⁹). This might indicate that the task used for this study was less sensitive to concurrent pointing movements. Furthermore, in association with the task used, whether the task made the use of efficient retrieval strategies difficult was not well established. Therefore, caution should be exercised in interpreting the results. Finally, the results might be explained by the principle of transfer-appropriate processing ¹⁶). In the present study, participants indicated the target locations by pointing. Therefore, the mode of encoding and the mode of retrieval were the same in the target-pointing condition. Possible interference effects of pointing movements to the target locations might be countered by the benefit.

Despite these limitations, the results, together with earlier findings that showed facilitatory or interference effects of pointing movements, suggest that the effects of pointing movements on VSWM performance are task-dependent. In fact, how pointing movements function differently depends on the paradigm used, as stated in the Introduction. However, results indicate the possibility that pointing movements can facilitate VSWM performance when several variables are controlled appropriately. Further study will be necessary with consideration of diverse variables including, for example, individual differences.

V. Acknowledgments

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ORIGINAL ARTICLE

Community Social Service and Public-Private Partnership

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ABSTRACT

This study presents considerations for the provision of social services in the form of public-private partnerships in each region of South Korea. After identifying which local governments provide social services in the form of public-private partnerships I investigated how the public and private sectors that provide these services perceive such partnerships. To this end, in-depth interviews were conducted on public servants and workers in private welfare centers in Gangdong-gu, Seoul; Nam-gu, Busan; Jangseong-gun, Jeollanam-do Province; and Cheongju-si, Chungcheongbuk-do Province, focusing on the Community Associations of Social Welfare, Hope Welfare Supporters, Dong as a Hub of Welfare project, and Public-Private Partnership cases.

The results of my analysis reveal that it is necessary to adopt a two-track approach by distinguishing between “finding” and “supporting” those in need of help in order to effectively provide social services. Furthermore, the task of providing social services to people with diverse needs cannot be done solely by the public or private sector; rather, cooperation between both is necessary. In particular, this study found that local public servants must perceive public-private partnerships more positively.

< Key-words >

Social services, public-private partnerships, local governments

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I . Introduction

Social services refer to programs and activities designed to pursue individual development and improve the welfare of people in a community. They include financial and social aid for those who cannot satisfy these needs on their own. Social services are also referred to as human services or welfare services,¹⁾ and such activities indicate planning, organizing, developing and managing programs for people as well as providing direct community services.

Social services in South Korea are, in many cases, planned by central governments and provided by local governments.²⁾ When the scope of welfare expands and relevant systems and recipients increase, each local government has its own regional conditions, making it more complicated to provide social services for people with diverse needs. Since social services are delivered locally under the order of central governments—metropolitan local government (Sis, Dos), primary local government (Sis, Guns, Gus), and subordinate administrative agencies of local governments (Eups, Myeons, Dongs)—the positions and perspectives of many actors involved in social services vary greatly.

Thus, this study is conducted based on the following concern: How do Sis, Guns, Gus, Eups, Myeons, and Dongs, which provide social services in South Korea, perceive social services and public-private partnerships? To achieve this, in-depth interviews were conducted on local public servants and workers in private welfare centers.

II . Community Social Service System in South Korea

1. Level of Local Administration in South Korea

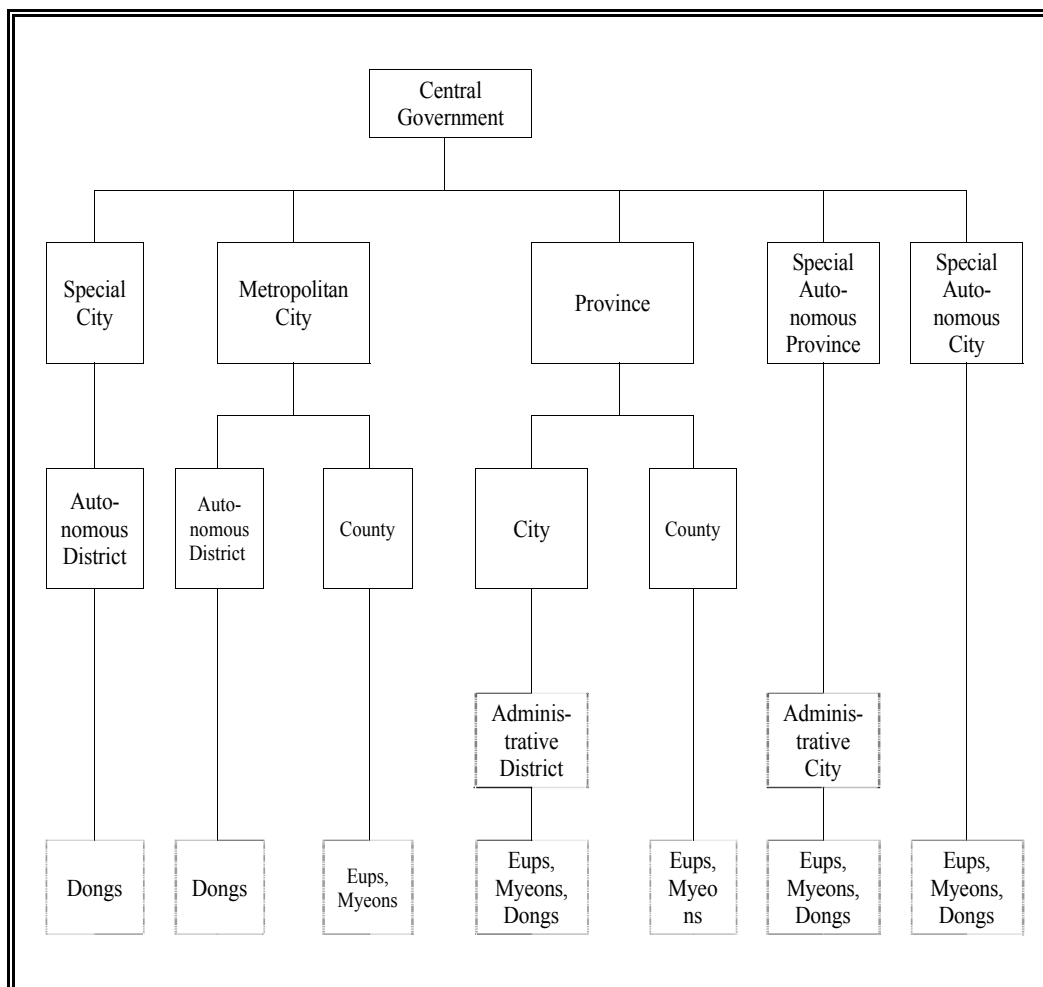
South Korea uses a multi-tier system of local administration. The local government level, which has legal authority, is two-tiered and the local administration level, which enhances efficiency of administration, typically has a three-tier structure.

The local government's two-tier structure includes (1) metropolitan local governments composed of Sis (special city and metropolitan city), Dos (province and special autonomous province), and (2) primary local governments composed of Sis (city), Guns (county), and Gus (district). The local administration level is classified by population and urbanization rate and includes sub-levels of Eups (town), Myeons (township), and Dongs (neighborhood).³⁾ As of September 1, 2014, South Korea consisted of 8 metropolitan Sis (including Sejong-si), 9 Dos (including Jeju-do), 75 primary Sis, 83 Guns, 69 Gus, 216 Eups, 1,196 Myeons, and 2,076 Dongs.

¹⁾ Yoon Youngjin, et al. (2011) Social Service Policy. Seoul: House of Sharing.

²⁾ Kang Hyegyu, et al.(2013) A Study on the Reform of the Welfare Delivery System of Local Governments. Seoul: KIHASA.

³⁾ Seo Jaeho(2013) A study on the Participation of Local Autonomous Activities and Sense of Community : Based on the Survey of Citizens who are living in the Boundary of 4 Community Centers in Busan Metropolitan City.



Source : Keum(2014: 45)⁴⁾, Ryoo et al(2014: 5)⁵⁾

<Figure 1> Structure of Local Administration System in South Korea

2. Social Services of Local Governments

The Community Associations of Social Welfare and Hope Welfare Supporters are organized within the Sis, Guns, and Gus of South Korea, where the public and private sectors provide social services based on cooperation and the role of Dongs is emphasized.

First, Community Associations of Social Welfare are public-private organizations made up of private agencies and Sis, Guns, and Gus that are in charge of establishing a community welfare plan for the region. In other words, before local governments establish a community welfare plan for their region, they listen to the ideas of private welfare centers and include some of these ideas in the final plan. Community associations of social welfare have been implemented nationwide since August 2005. They deliberate or propose the community welfare plan as well as other important matters regarding social welfare services within their jurisdiction and help to strengthen

⁴⁾ Geum Changho(2014) Local Administration System Reform Initiative of United Korea.

⁵⁾ Ryoo Youngaa, et al(2014) A Case Study on the Making of the Basic-Level Resident Council in Korea: Lessons Drawn from the Pilot Project of the YangChon-Eup Village Resident Council.

cooperation among social welfare services and health and medical institutions and organizations.

Second, the Hope Welfare Supporters Groups are organizations that support welfare services at the offices of Si, Gun, and Gu, mostly in charge of case management of households in crisis. Those in crisis can either directly request help or report their neighbors in crisis to the offices of Si, Gun, and Gu, centers of Eup, Myeon, and Dong, or the Ministry of Health and Welfare (MW) Call Center 129. These agencies will then be able to fulfill the welfare needs of these individuals through customized welfare services. The Hope Welfare Supporters were established in Sis, Guns, and Gus in May 2012 and are operated according to regional conditions. These organizations identify welfare recipients with complex needs and provide public support or connect them to private services. Moreover, they are considered integrated social service organizations in charge of managing local resources and the visiting services business, while also playing a pivotal role in providing region-based integrated services.

Third, the Dong as a Hub of Welfare Project highlights the fact that there are many social services provided by the centers of Eup, Myeon, and Dong. As of 2014, 16 central governments (e.g., MW; Ministry of Land, Infrastructure, and Transport; Ministry of Culture, Sports, and Tourism; Ministry of Agriculture, Food, and Rural Affairs) support 289 social services that are directly provided by Eups, Myeons, and Dongs. Central governments have developed various welfare projects according to the characteristics of each department (e.g., national basic living security, support for near-poverty groups, support for single-parent families, emergency aid and support, basic senior pensions, Bogeumjari Housing, Cultural Voucher, and providing education expenses for low-income group), and have been providing support for welfare recipients. In fact, the centers of Eup, Myeon, and Dong are the ones that investigate and verify welfare recipients, support them, and deal with civil complaints.

It is particularly difficult for Dongs with average more than 20,000 residents to provide so many social services directly. There may be issues of redundancy, omission or bias of social services; welfare “blind spots” that fail to meet the legal requirements to receive social services; and insufficient systems of connection between those in need of help and those who provide resources. For example, in May 2013, one social welfare public servant at a Dong in Seoul was taking care of 658 welfare recipients and dealt with 180 welfare tasks on average.⁶⁾ In one Dong of Gangneung-si, Gangwon-do Province, the total number of welfare tasks added up to 2,948 in one month, and the maximum number of civil complaints a day was 179.⁷⁾ As such, the aim of Dong as a Hub of Welfare Project is to enable the delivery of social services to be more “Dong-centered” by reducing both simple administration tasks and personnel while strengthening Dongs’ welfare functions by adding more welfare personnel. Now, welfare recipients in need of help or their neighbors

⁶⁾ The Kukmin Ilbo. 2013. 5. 31.

⁷⁾ The Kangwon Ilbo. 2013. 5. 28.

can visit a Dong center and apply for social services without needing to know which department is relative to their specific needs, as the Dong will connect them to the relevant department.

The project also includes the creation of a Welfare Head of the Dong system, which appoints social welfare public servants as heads of the Dongs. The project also provides Welfare Coordinators for the centers, and organizes a Dong Community Welfare Association to enable cooperation between public and private sectors.

III. Case Study and Perceptions of Public-Private Partnerships

1. Target Areas

Gangdong-gu, Seoul, an area with no companies or universities within the jurisdiction, was investigated based on a literature review and in-depth interviews conducted in May and June 2013 with a team manager at the office of Gangdong-gu, a social worker at the Seoul Welfare Center for the Disabled, and a team manager at Gangdong-gu Social Welfare Center.⁸⁾

Nam-gu, Busan, a place of refuge during the Korean War, was investigated based on a literature review and in-depth interviews conducted in June 2013 with an action officer at the local government office of Busan Nam-gu, a department head at Busan Namgu Welfare Center, and a team manager at Busan Namgu Senior Welfare Center.⁹⁾

Jangseong-gun, Jeollanam-do Province, a rural area with many senior citizens and multicultural families, was investigated based on a literature review and in-depth interviews conducted in June 2013 with an action officer at the local government office of Jangseong-gun, a general affairs team manager at Jangseong-gun Multicultural Family Support Center, and a manager at Jangseong-gun Youth Counseling & Welfare Center.¹⁰⁾

Cheongju-si, Chungcheongbuk-do Province, took on its current form after Cheongju-si and Cheongwon-gun were combined on July 1, 2014. Cheongju-si manages various social services programs and is allocated a great deal of welfare budget since the mayor of Cheongju-si is significantly interested in social welfare services. Cheongju-si was investigated based on a literature review and in-depth interviews conducted in July 2013 with an action officer at the local government office of Cheongju-si, a team manager at Cheongju Welfare Foundation, the director of Cheongju Bukbu Social Welfare Center, the director of Cheongju Sannam Social Welfare Center, and a full-time secretary at Cheongju-si Community Association of Social Welfare.¹¹⁾

2. Community Associations of Social Welfare

The Gangdong-gu Community Association of Social Welfare is a public-private

⁸⁾ Gangdong-gu(2013) Inside Data. Seoul: Gangdong-gu.

⁹⁾ Nam-gu(2013) Inside Data. Busan: Nam-gu.

¹⁰⁾ Jangseong-gun(2013) Inside Data. Jeollanam-do Province: Jangseong-gun.

¹¹⁾ Cheongju-si(2013) Inside Data. Chungcheongbuk-do Province: Cheongju-si.

organization that consists of 15 members and hosts quarterly meetings. Its joint chairmen are the Vice Mayor of Gu and a private commissioned member.

The Busan Nam-gu Community Association of Social Welfare is a public-private organization consisting of 20 members; however, it is not actively operated because it lacks a full-time secretary. Its joint chairmen are the Mayor of Gu and one private commissioned member.

The Jangseong-gun Community Association of Social Welfare is a public-private organization consisting of between 10 and 20 members. Its joint chairmen are the County Governor of Gun and one private commissioned member.

The Cheongju-si Community Association of Social Welfare is a public-private organization that consists of between 15 and 20 members and hold meetings monthly, along with “welfare festivals.” The welfare plans of Cheongju-si are established every four years. Its joint chairmen are the Mayor of Si and one private commissioned member. Its full-time secretary is the Chairman of the nationwide Community Associations of Social Welfare, and thus the Cheongju-si Association’s activities are carried out actively.

3. Hope Welfare Supporters Groups

The Gangdong-gu Hope Welfare Supporters Group was established at the end of April 2012 to provide customized, integrated case management services for people in crisis and those who are considered the vulnerable class. Led by the Gangdong-gu Hope Welfare Supporters, the Gangdong-gu Hope Welfare Network was established in 2013 to provide full-scale public-private partnership welfare services.

The Busan Nam-gu Hope Welfare Supporters Group was established in April 2012 to provide integrated welfare services by finding families in crisis within the jurisdiction. In February 2014, 2,000 copies of a book that contained the performance and cases of the Hope Welfare Supporters Group were distributed in an effort to attract and secure volunteers and supporters’ organizations.

The Jangseong-gun Hope Welfare Supporters Group was established in April 2012 in an effort to manage, prevent, and overcome poverty within the low income group. It was selected by the MW as an outstanding Hope Welfare Supporters Group during its evaluation of nationwide welfare policies in November 2012. The group received a citation and prize money (30 million KRW).

The Cheongju-si Hope Welfare Supporters Group was established in April 2012, providing not only social services but also other services such as employment, health care, education, housing and legal services for welfare recipients with complex needs. Moreover, it provides services such as resource management and visiting services to offer integrated social services.

4. Dong as a Hub of Welfare Project

When low-income residents seek advice at a Dong center, the “Dong as a Hub of Welfare project” investigates their needs and connects them with service providers within the region. During the in-depth interview, the team manager at the office of Gangdong-gu stated: “We’re talking about this Dong as a Hub of Welfare Project, but since we reduced the 20-something workers at the center down to 12-14 workers in 2,000 and completed the transfer of control over some functions to the Gu office, we no longer have sufficient staff to provide Dong-centered social services. In Gil-dong, Gangdong-gu, 20 workers are taking care of 50,000 residents. It is difficult for Dong to be in charge of providing social services as well, especially in this kind of situation.”

In addition, the action officer at the office of Busan Nam-gu stated: “Since the size of Dongs in Nam-gu, Busan, are all different, it is difficult to uniformly apply this method of giving exclusive responsibility for resident welfare to Dongs. If this responsibility is to be based on the autonomy of Dongs, wealthy Dongs will have more welfare resources and donators than poor Dongs, causing welfare recipients in poor Dongs to receive fewer benefits and resulting in the rich-get-richer and the poor-get-poorer phenomenon.”

Since there are Eups and Myeons but no Dongs in Jangseong-gun, it is not relevant to the Dong as a Hub of Welfare project. Moreover, since the area is small and does not have many residents, it is more efficient for the Gun office to be in charge of welfare tasks, according to the executive secretary at the office of Jangseong-gun.

The action officer at the office of Cheongju-si stated: “If this Dong as a Hub of Welfare project is carried forward without a long-term plan, there would be new projects every time the government changes. If welfare staff is suddenly supplemented just to reinforce the welfare manpower of Dongs, there would be an inflow of low-quality workers. Dongs cannot be the hub of welfare without any budget to perform welfare tasks.”

5. Best Practices in Each Region

The Gangdong-gu Hope Welfare Network was organized in February 2013 after the 18 welfare and other relevant organizations in the jurisdiction as well as resident organizations signed an memorandum of understanding (MOU) centering on the local government office of Gangdong-gu. Resident organization members, visiting welfare workers, pharmacists, religious people, and entrepreneurs within the region were then appointed by the Dong center to “find welfare recipients” and “deliver welfare or financial services.” As a result, the monthly average of cases of finding welfare recipients went from 7.6 before building the public-private partnership to 19 currently. However, the team manager at the office of Gangdong-gu pointed out that “it is difficult to provide support even if we find homes in crisis unless we have sufficient systems to support them. It is a problem that we only find so many cases without securing enough systems for support.”

The Busan Nam-gu ON (온) Integrated Project is a plan to increase resident participation in welfare through the following two actions: (1) The head of the Dong was

appointed as an “ON Finders” in 2013 to identify underprivileged groups. The office of Busan Nam-gu offered necessary education, and gave the head of the Dong the duty to contact the Gu office when he finds such people. (2) The Hope Link community project was established as a way for residents to help other residents. That is, the residents collect small donations for underprivileged children to buy school uniforms and receive donations of unused supplies.

The Jangseong-gun Community Youth Safety (CYS-Net) is mostly run by the offices of Si, Gun, and Gu in other regions, but in Jangseong-gun it is led by the Youth Counseling & Welfare Center. Meetings are held monthly by connecting the Gun office, the office of education, police station, and the Youth Counseling & Welfare Center to provide solutions for adolescents that are facing difficulties. The public servants of the Gun office visit the potential recipients and discuss their circumstances during case management meetings of the Hope Welfare Supporters Groups in an effort to find various solutions.

The Cheongju Welfare Foundation was established in 2012 with the investment of 5 billion KRW by Cheongju-si. To avoid redundant roles with the existing private welfare center, the foundation does not carry out welfare projects directly or conduct fundraising campaigns; rather, it supports the private welfare center, provides professional education, and evaluates the social services that are needed in Cheongju-si. Cheongju-si public servants and private welfare center workers are dispatched to the Cheongju Welfare Foundation for one year each to communicate, collaborate, and build a network. The advantages are that the public and private sectors can work together to understand each other's positions and tasks while also sharing information and discussing new ideas with each other. In the long run, the foundation plans to connect the public and private sectors to accumulate data, share information, and build a network, thereby providing social services that distinguish Cheongju-si.

6. Perceptions on Public-Private Partnerships

1) Gangdong-gu, Seoul

In response to the redundancies and omissions of social services due to a lack of information sharing between the public and private sectors, Gangdong-gu is working to develop a “public-private joint establishment and use of integrated welfare service data” to prevent these redundancies and omissions. By building the “visiting services business cooperative system,” the Gu office, Dong center, and private welfare center will be able to share data and pay a joint visit when necessary, as well as register outcomes on the “integrated social welfare management system.”

Regarding the public-private partnership, the team manager at the local government office of Gangdong-gu took a negative position, while the social worker in Seoul Welfare Center for the Disabled and the team manager at Gangdong Social Welfare Center both took a positive position, indicating that there is a gap in the position between the public and private sectors. The social worker in Seoul Welfare Center for the Disabled explained:

“We began to do this as the government began to use the term case management for the casework that had been previously carried out by private welfare centers. While supporting welfare recipients, private welfare centers also wanted to change the environment so that the recipients can stand alone. But now the government (public) holds the integrated case management meetings where they decide on necessary details and connect them to resources. Social services that had been provided by private welfare centers are now provided by the government. For public-private partnership to work well, the most necessary thing is for private welfare centers to enthusiastically help the Gu offices when they request it, and build trust. If those who helped are awarded a mayoral citation, they are much happier to help.”

The team manager at Gangdong Social Welfare Center said: “Private welfare centers do not have the information on the income or family situation of welfare recipients, whereas the Gu offices are aware of accurate information such as means tests and dependents; thus, it is helpful for the public and private sectors to share information.”

2) Nam-gu, Busan

The “project utilizing volunteer groups” involves volunteer groups that repair the houses of low-income residents. It also serves these low-income residents through a public-private-army partnership based on an MOU with the Busan naval base (e.g., haircutting services, improving worn-out electric installations, repairing buildings) and provides lifelong education for residents (e.g., taekwondo, English, Chinese). To improve the quality of social services, of the Gu office hosts the Public and Private Social Welfare Workshop every year in which social welfare public servants of the Gu office and Dong center as well as social workers of private welfare centers participate. During the workshop, participants share their know-how for case management as well as techniques to deal with civil complaints between the public and private sectors, and discuss methods for creating and sustaining public-private partnerships.

Regarding the public-private partnership, the action officer at the office of Busan Nam-gu took a negative position, while department head at Busan Nam-gu Welfare Center and team manager of Busan Nam-gu Senior Welfare Center both took positive or negative position, showing a difference in perception between the public and private sectors. The action officer at the office of Busan Nam-gu stated: “Private welfare centers perceive case management as their own duty. Now the public sector is also carrying out case management, but private welfare centers are not acknowledging that. There is no innocent volunteer or donation; those who want something from the office of Busan Nam-gu are, in the end, those who volunteer and make a donation. There are no good feelings toward private welfare centers.”

The department head at Busan Nam-gu Welfare Center stated: “The Gu office and the private welfare center have a close relationship. The Gu office guides and inspects the private welfare center, gives subsidies, determines whether or not to maintain

consignment, and thereby influences the private welfare center. The private welfare center has programs running every day and hosts many events, so it is tough when we are requested to draw up some documents all of a sudden and send within the day. It would be helpful if there was a system to share information among private welfare centers. The Gu office can create this system for private welfare centers to participate along with the Gu office. That would be great.”

The team manager of Busan Nam-gu Senior Welfare Center stated: “Public servants in the Gu office change too frequently, so it is difficult to maintain trust or cooperative relationship. Private welfare centers have carried out case management for a long time, but now the Hope Welfare Supporters Groups of the Gu office are doing case management, so there is an issue of overlapping territories. What we need is for the Gu office to provide information necessary for private welfare centers to carry out case management and create systems that are needed, but I do not understand why the Gu office is also doing case management. Private welfare centers have never had trouble finding resources required by the region, but it will not be easy for the Gu office since it has never done it. Social workers of private welfare centers are treated more poorly than social welfare public servants of the Gu office, but the media is only interested in social welfare public servants working in the offices of Gu or Dong centers.”

3) Jangseong-gun, Jeollanam-do Province

The Jangseong-gun Community Solidarity for Protecting Women and Children project was selected as an outstanding organization by the Ministry of Gender Equality and Family (MGEF) in December 2013. The project is a community “safety net” based on a public-private partnership, run by 244 local governments nationwide since 2010. In Jangseong-gun’s Community Solidarity for Protecting Women and Children, a committee was formed among the police station, office of education, Youth Counseling & Welfare Center and residents, carrying out various crime prevention education programs and campaigns, publicity events, assistance in commuting to school, safety maps for children, and reorganizing crime-ridden districts.

Regarding the public-private partnership, the action officer at the office of Jangseong-gun, general affairs team manager at Jangseong-gun Multicultural Family Support Center, and manager of Jangseong-gun Youth Counseling and Welfare Center all took a positive position, proving that small rural areas are more enthusiastic about public-private partnerships. The action officer at the office of Jangseong-gun stated: “Jangseong-gun is a small region so there is no private welfare center, only small private centers. With a small area and many senior citizens, it is difficult to provide services if public-private partnerships are not working properly, which makes us cooperate more. It is inconvenient that both the Gun office and private center do not have money for business expenses. The MW is telling the public servants of the Gun office to do case management, but it is something the private center has been doing for a long time with

their own know-how. So even if public servants start doing case management now, they will not be able to do it as intensively as the private center. It would be better for both parties to acknowledge the private center's territory and let the Gun office do the things they can do."

The general affairs team manager at Jangseong-gun Multicultural Family Support Center stated: "In Jangseong-gun, public servants, private center workers, and residents are all from this region, all related with regionalism, school ties, and blood relations. So they know one another and can cooperate very well. That is the biggest power of Jangseong-gun. If we request help from the Gun office when necessary, they help us out a lot. They cannot provide financial support since they do not have money either, but they search for information, try to connect us to resources, send official documents for us, and help us out in many ways. Jangseong-gun has many senior citizens, and they show interest in multicultural families and try to help them. There are many multicultural families in the countryside."

The manager of Jangseong-gun Youth Counseling & Welfare Center stated: "The Gun office and the private center call each other 2-3 times a day and meet frequently. The Gun office tries to help the private center a lot, and vice versa. There are no difficulties at all regarding the Gun office. We share our ideas with each other. We had a hard time because there was no place to ask for help when establishing the private center. The Gun office did not know much about establishing a private center either, so we visited the private centers of other regions to ask questions. I hope the Gun office or the provincial government will set up guidelines for establishment and operation of private centers. Since it is a private center, we have to separately create an electronic approval system and accounting system. But it would be efficient for the public and private sectors to share the information system that is already used in the public sector."

4) Cheongju-si, Chungcheongbuk-do Province

In March 2014, Cheongju-si established the Emergency SOS Supporters Group to find and support the underprivileged people in welfare "blind spots." Households in crisis are found in connection with public agencies (e.g., Cheongju-si, Cheongju Job Center, Cheongju Office of Education, National Health Insurance Corp. Dongbu/Seobu Branch, Korea Electric Power Corporation Cheongju Branch, Chungcheong Energy Service), private agencies (e.g., Community Chest of Korea, Cheongju Welfare Foundation, six private welfare centers, social welfare councils, Community Self-sufficiency Assistance Centers, child protection institutions, volunteer centers, health care centers, 13 local children's centers), and medical institutions (e.g., Chungbuk National University Hospital, Hyosung Hospital). The subjects include families who have had their electricity, water, and/or gas cut off, families with overdue health insurance premiums, families who have recently been rejected from the national basic living security or those rejected because one of the applicants did not meet the duty-to-support requirements, and

children that are poor, neglected, and/or underfed.¹²⁾

Regarding the public-private partnership, the action officer at the office of Cheongju-si, team manager at Cheongju Welfare Foundation, director of Cheongju Bukbu Social Welfare Center, director of Cheongju Sannam Social Welfare Center, and full-time secretary at Cheongju-si Community Association of Social Welfare all took a positive position, indicating that regions with great interest in welfare tended to need public-private partnerships. The officer at the office of Cheongju-si (A) stated: "If Cheongju-si is combined with Cheongwon-gun, it will become a huge city and thus increase the demand for social services, therefore it is necessary to combine the advantages of the public sector with the advantages of the private sector. Both the public and private sectors need each other."

The team manager at Cheongju Welfare Foundation stated: "Social services are too complicated and massive in terms of contents for the government (public) to take charge, so the private sector has been responsible for that. But now the government (public) is to be doing case management, which may lead to overlapping tasks. We need to find resources around Cheongju-si and connect them to those in need. If social welfare public servants and private welfare center workers in Cheongju-si receive education together, it would be great because they would build a network and better understand each other."

The director of Cheongju Bukbu Social Welfare Center stated, "We are emphasizing the public and private sectors, but we also need to connect private and private. There are characteristics of regions of which the private welfare center is in charge. It would be great if the public played a pivotal role and promoted private-private partnerships. Rather than giving citations from private welfare centers to model sponsors, it would be more honorable for them if they are given mayoral citations."

The director of Cheongju Sannam Social Welfare Center stated: "We need a network among private welfare centers such as social welfare centers, senior welfare centers, and welfare centers for the disabled. The private sector refers to case management as personally visiting welfare recipients, providing necessary services and striving to change the environment. But the public sector refers to it as finding welfare recipients who need help. In terms of the territory of case management, the public sector cannot keep up with the private sector. The public and private sectors must be aware of their own limitations and help each other. They must share the information they have and receive education together."

The full-time secretary at Cheongju-si Community Association of Social Welfare stated: "The MW created a law that enforces the establishment of the Community Associations of Social Welfare, but they are actually not examining what these Community Associations of Social Welfare are doing and how. The public and private sectors must more actively exchange information on welfare resources in Cheongju-si. Welfare resources are limited,

¹²⁾ Asia News Communication. 2014. 3. 20.

so if we do not take measures, it will be difficult to provide social services for local districts that are not in the capital areas.”

IV. Discussion and Implication

This study presents cases of public-private partnerships in Gangdong-gu, Seoul; Nam-gu, Busan; Jangseong-gun, Jeollanam-do Province; and Chungcheongbuk-do Province by focusing on transmission of social services. By conducting in-depth interviews with local public servants and workers in private welfare centers, this study suggests considerations for public-private partnerships that are necessary to provide social services in local areas.

While conducting in-depth interviews for research, it was discovered that residents in each region perceive “welfare” as synonymous with “autonomy.” In other words, the interviewees stated that if residents obtain the competency to govern the region themselves, they must use that competency to help those in need. The fact that residents perceive welfare and autonomy equally indicates that they are demanding a paradigm shift from the MW, which emphasizes “community welfare,” and the Ministry of Security and Public Administration (MOSPA), which emphasizes “local autonomy.”

The cases of Community Associations of Social Welfare, Hope Welfare Supporters Groups, Dong as a Hub of Welfare project, and public-private partnerships within the Sis, Guns, Gus, Eups, Myeons, and Dongs of South Korea include activities that find welfare recipients in need of help and connect them to the appropriate aid resources. In other words, the key is to actively “find” families in crisis near the residents and “support” necessary services.¹³⁾

However, legal and institutional improvement is necessary in order to actively provide social services. For example, 86.0% of the total MW budget is cash from the original budget in 2013, limited to cash grants such as expenditures related to national basic living security (45.1%), childcare subsidies (21.4%), and senior life subsidies (19.1%).¹⁴⁾ As the portion of cash grants for welfare recipients increased, the MW focused on exposing dishonest recipients and has not make a sufficient effort to improve the law or institutions for social services. In fact, as a result of conducting in-depth interviews, many criticized that the public offices (i.e., Sis, Guns, Gus, Eups, Myeons, and Dongs) are currently focusing only on “finding” welfare recipients rather than improving the systems to “support” them. Welfare “blind spots” commonly refer to the underprivileged people who cannot receive help from the existing law and system. They are in need of help but either (1) cannot apply for and receive help because they do not know how, or (2) they have applied for help but cannot receive it because there is no relevant law or system. For those

¹³⁾ Yang Giyong(2012) Compatibility of Market and Publicness in Community Service Innovation Program of South Korea.

¹⁴⁾ Lee Jaewon(2014) A Study on the Intergovernmental Fiscal Relationship for Sustainable Welfare State. Seoul: The Korean Association for Local Government Studies.

who do not know how to get help, it is necessary for public offices to “find” these people within the welfare blind spots. In addition, it is necessary to “support” those in welfare blind spots by creating relevant laws and systems. Thus, it is necessary to take a two-track approach by distinguishing the act of “finding” welfare recipients from “supporting” them. Even if welfare recipients are “found,” they can still be neglected again unless there is a law or system to actually “support” them.

For social services to further develop in the future, the public offices of Sis, Guns, Gus, Eups, Myeons, and Dongs must share a positive perception of public-private partnerships. Some local public servants perceive public-private partnerships negatively, often criticizing that the services provided by the private sector are limited in terms of supply while goods are supplied without accurate information on each welfare recipient, even though the private sector has provided social services for decades. Similarly, some private welfare center workers complain about the attitude of public servants. In other words, the government (public) is just depriving the private sector of the job of providing welfare services that has been done in the private sector for decades. The government (public) also considers private welfare centers as agencies that must be supervised rather than acknowledging them as equal partners. Private welfare center workers also complain that the public sector does not want to share its computer network system to create information on welfare recipients, but still demands information from private welfare centers. In fact, the government (public) is aware of information on welfare recipients (e.g., income, assets, dependents) even though private welfare centers in some regions have directly carried out activities (e.g., actual interaction with family dependents, checking daily life by visiting the homes). Thus, it can be assumed that connection and cooperation between the public offices of Sis, Guns, Gus, Eups, Myeons, and Dongs and private welfare centers may produce positive synergy effects.

This study is significant in that it analyzed the cases of public-private partnerships related to social services in South Korea and investigated the perceptions of these partnerships by workers in both the public and private sectors. However, this study is limited in that it did not review relevant theories or previous studies, the target case area is limited, and a systematic case analysis was not conducted. It is expected that future research will complement the limitations of this study.

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ORIGINAL ARTICLE

Non-Formal Education and Political Participation in Post-Socialist Countries

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ABSTRACT

The relationship between educational fulfillment and political participation has been one of the most persistently studied subjects within the field (e.g., Berinsky and Lenz 2010). Previous studies define the positive relationship between education and political participation. It means that people who have a higher education are more likely to participate in politics than those who are less-educated. This includes both conventional and unconventional forms of participation, specifically voting and protesting (Huntington & Nelson 1976; Marsh 1990; & Dalton 2009). Falling in line with the previous research provided on the link between formal education and political participation, does non-formal education also produce similar outcomes? To understand the link between non-formal education and political participation, this study collects and explores empirical data in the post-socialist countries. With the data collected from the World Values Survey, the Eurostat Adult Education Survey, and the Eurostat Adult Education Survey in post-socialist countries, a correlation analysis between independent variable (job-related learning activities) and dependent variables (voting turnout and attending demonstration) are performed. The results of this study provide an insight into whether or not it is worth for the government to continue to administer the funds for non-formal education to consolidate a representative democracy in the post-socialist countries.

<Key-words>

Non-Formal Education, Political Participation, Post- Socialist Countries

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I . Introduction

Much debate has taken place on the properties of political participation. What causes people to participate in politics? Do such activities only affect a specific type of participation, or does it encompass all areas? While much research has been conducted on these questions, the correlation between non-formal education and political participation has been left open for debate. Michelle Kuenzi conducts a study in the rural areas of Senegal to explore this question. Her findings find that non-formal education does positively affect political participation in a number of ways. She also mentions that similar studies have been conducted in areas of Latin America and Asia following the same relationship (Kuenzi, 2006), but not the area of the post-socialist countries. Therefore, this study sets out to discover whether or not non-formal education positively affects political participation in the post-socialist countries as Kuenzi's study finds it does in Senegal.

1. Non-formal Education

The term “non-formal education” was first used in 1968 by Phillip Coombs to label a new idea for a different kind of education which was not confined to the boundaries drawn by formal education (La Belle 1982; 1986). However, the general idea was most likely introduced by Paulo Friere who believed that certain personal developments within educational systems would lead to the empowerment of the people and who advocated rejection of the mass education system (Kuenzi, 2006; La Belle, 1986). This idea follows what is a combination between the functional and structural views of education. The functional view, which is used in the study by Coombs and Ahmed, states that education is a lifelong process. This is typically held as the basis of informal education. The structural approach, however, is important in that it facilitates the learning of specific ideas or skills which help a person succeed in many avenues of life. Usually, this falls under the formal structure. Non-formal education, as a fusion of these approaches, is of a broader scope than formal education but does not reach out to include much of the informal realm (Coombs & Ahmed, 1974).

To be able to discuss the classification of non-formal education, it is pertinent to provide definitions for what it is not. Formal, non-formal, and informal education are separated by a fine line because each does have its own characteristics. Formal education is any learning that occurs in a structured, organized way (Colardyn & Bjornavold, 2004). It typically is funded and run by the government, and it includes lower primary school and ranges up until the end of the tertiary level. The other end of the spectrum is known as informal education, sometimes called lifelong learning. La Belle entertains the idea that informal education is “the lifelong process by which every person acquires and accumulates knowledge, skills, and insights from daily experiences and exposure to the environment.” It has no structure or specified instruction (La Belle 1982; 1986).

Non-formal education falls into the category between formal and informal education. Kuenzi conceptualized this type of education as any program that is set up to provide basic literacy and numeracy skills to its students. This usually includes the adults who have never taken part in a formal education system or dropouts from that system (Kuenzi, 2006). La Belle created a more in-depth definition for the concept and states that it is any educational activity that is both organized and structured but provided outside of the formal system which focuses on a specific topic of learning to certain subgroups within a society. Usually it includes adults as well as children, but this study will focus on the non-formal learning of adults only because the data collected includes only the adult population who is capable of voting and otherwise participating in politics. In many areas, such as the developing countries, the need for non-formal education arose for people who could not obtain a good public education or required a supplement to their formal education. To be sure, non-formal education must satisfy two sets of criteria: it must involve an organized systematic structure and not be included within the boundaries of the formal system. Another guideline is that it must work toward meeting certain educational goals. Rather than a degree or diploma like those received at the completion of formal education, non-formal education might provide a certificate or badge to the students (La Belle 1982; 1986).

Many non-formal education activities in developing countries focus on literacy and numeracy as well as those pertaining to an individual's everyday needs such as nutrition, health, and employment issues. According to La Belle, there are six categories of personal development for which an adult might request instruction from non-formal education: moral instruction, appreciation of the arts, values, problem solving, leisure time, and basic skills. Job training is also included, and it encompasses a large variety of occupations, including instruction on trade-skills, military training, and acquiring service skills. These are all categorized under three overarching types of non-formal educational systems: those that offer industrial and commercial skill training; those which allow an individual or group to adapt to a changing society, such as agricultural extension, literacy, and health instruction; and those which facilitate community development and organization (Kuenzi, 2006; La Belle, 1982).

In his work entitled, La Belle also separates non-formal learning opportunities under two contrasting paradigms: the equilibrium paradigm and the conflict paradigm. Any activity that strives for the increase of human capital, such as job training and basic skills development, is categorized under the equilibrium paradigm. This is a system that naturally equals itself out but operates under internal stresses, which must be overcome. In essence, if some aspect that causes equilibrium is present, the removal of that aspect will result in instability. Adaptation is the only way to adjust for the changing of such conditions. Those associated with any revolutionary activity or attempts at social change are grouped under the conflict paradigm. This paradigm entertains the idea that people are egocentric and that ways of obtaining their desires include participation in group

action. Contrary to the equilibrium paradigm, those who advocate the conflict paradigm state that there are not separate parts of a society that interact with one another; rather, each part acts independently of the others, which emphasizes the role of structures in society (La Belle, 1986).

Taking the above definitions and arguments about non-formal education into account, certain regions and countries have started to implement forms of this education into their societies. According to the European Union, formal education is not capable of fully providing for the European need for and interest in gaining information, but non-formal education has been considered both an effective supplement and complement. Studies in Romania show that non-formal education has been successful in the increase of development within the country. Although Europe as a whole considers specifically formal education to be a strong link to development, non-formal avenues have proven to be less costly, which provide for a more affordable alternative balance for formal education (Padurean, 2012). This major reason shows why non-formal education is increasingly important within the post-socialist region.

2. Political Participation

One single definition for political participation is currently impossible to find, as every scholar has his or her own way of understanding and conceptualizing it. According to Huntington and Nelson, political participation can be defined as activity by private citizens who influence government decision-making. Attitudes toward politics are not included within this definition. He later says “political participation may be directed toward changing decisions by current authorities toward replacing or retaining those authorities or toward changing or defending the existing organization of the political system and the rules of the political game” (Huntington & Nelson 1976). However, Verba and Nie argue against the latter idea excluding from their study any attempt of a group of people to either change or keep the current government. Building on this, many agree that the political activity must be government-focused, which means that any activity by one individual or group against another individual or group should be excluded. Contrary to this, Booth and Seligson include within their conceptualization strikes by workers or unions against a company. Conge provides a definition from Verba and Nie that political participation is a behavior conducted to affect the decisions of the government or its policies. However, Conge also provides his own views on what it means, stating: “political participation is any action (or inaction) of an individual or a collectivity of individuals which intentionally or unintentionally opposes or supports, changes or maintains some feature(s) of a government or community” (Conge, 1988). It is mutually understood that political participation entails the participation only of citizens, not of political officials (van Deth, 2001; Huntington & Nelson, 1976).

The realm of political participation can be separated into two distinct groups: conventional and unconventional participation. During the 1960s, participation could be

defined as any political activity that was considered “traditional,” (later termed conventional) whereas in the decade before, only voting and campaign work were held to be acts of participation. Later, participation in community groups was added to the category of conventional activities, and unconventional methods were eventually added through the categories of protesting and social movements (van Deth, 2001). Conventional participation can occur at any point in time and tends to happen the most often. Some examples include whether or not one reads about politics, discusses politics, persuades others to vote in a specific way, is active in community participation, attends political meetings, contacts politicians, or works for a particular party or candidate (Marsh, 1990). Unconventional participation only occurs when the need or opportunity arises. This means that they do not occur on a regular basis, but only when circumstances call for such political engagement (Barnes et al., 1979). Some examples for unconventional action are protests, petition signing, boycotting, occupation of government buildings by participating in a sit-in, and even the illegal forms of vandalism and violent rioting (Dalton, 2009; Marsh, 1990).

All of the above arguments lead to the decision of what should be included within the framework of this study, conventional and/or unconventional participation and what specific actions, as well as how they should be measured. Although Marsh and Barnes provide a convincing argument against the use of voter turnout, this study will include voter turnout as well as different forms of unconventional action, as does Dalton and Inglehart. Political participation, according to Inglehart, can be divided into three different levels: the least demanding route of voting in elections, the next avenue of learning more about politics, and then the most demanding route of the three – trying to do something about a political issue (Inglehart, 1977). This is why both voting and attendance of demonstrations have been chosen for this model – it encompasses the easiest route of participation as well as the most taxing. The other conventional actions listed above will not be sufficient in this research, due to the inability to create and deliver a survey within the time allotted for the study. Another reason is that voter turnout is a more efficient measurement for a study which will be using cross-national level data rather than individual level data. In the realm of unconventional participation, this study will contrast the work done by Barnes and Kaase, who pair the measurement of the potential to participate in direct action with individual intent to participate. This type of measurement provides data on an individual level, rather than a cross-national level, on which this study presents its case (Barnes & Kaase, 1979). This research will be conducted using data that shows how many people within a given country have participated in demonstrations in the past.

Although the likelihood that people will participate in political elections in an increasing manner is high due to the greater accessibility of the voting process, this is not the way it has progressed (Pacek et al., 2009). Throughout the period between the end of the communist rule and the present, post-socialist countries have indicated a lower level

of participation than had been projected. These low levels pose a threat to their relatively newly formed democracies. In fact, this trend of decreasing levels of political participation is not common only in this region, but it is rapidly becoming the norm throughout the world (Howard, 2002). It is well-known specifically that voter turnout rates in the post-socialist countries have been declining over the past couple of decades. Citizens have continued to neglect the polls on Election Day. The idea that increased accessibility to voting will encourage people to participate more in elections comes from the stakes-based approach to voter turnout, which states that people will be more likely to vote when there is more to lose (Pacek et al., 2009).

3. Post-Socialist Countries

Within the framework of this research, the post-socialist European countries will be evaluated. This area of interest is important to study because of the lack of research provided on this region in reference to non-formal education specifically. Kuenzi's efforts were focused on the country of Senegal, and it is mentioned that such studies have been done in Latin America and other parts of Africa and Asia as well. This leaves the post-socialist countries open for more speculation and research potential. Also, the study of these countries provides an example of an area which best allows for the understanding of the inner workings of political participation in the context of new governmental systems. Their common histories of authoritarian rule, with a change to democracy or democratic-like governments provide a common vantage point from which one can compare. As stated by Jackman and Miller, Eastern Europe and Russia had a strong legacy of authoritarianism in the recent past. This indicates the difficulties that the region has in gaining democratic support and maintaining the interest of its citizens in the democratic process. The data and analyses show that being exposed to the workings of democracy and the presence of democratic institutions provides much influence on the level of political participation in a positive way (Letki, 2003). With the fairly recent addition of the non-governmental and non-formal educational programs, due to the possibility of having such non-governmental systems present, it is of great interest to scholars to understand this phenomenon. Knowing how non-formal education impacts political participation within these societies allows them to better understand the workings of these new regimes and how to improve participation levels within these countries.

II. Research Design

1. Date and Variables

The general hypothesis of this study can be stated as such: As the level of non-formal education increases, the greater the level of political participation in post-socialist countries. To perform an analysis to test this hypothesis, both of the descriptive statistics

and the correlative analysis of the variables are applied. Data for these analyses are compiled for the independent variables of job-related learning activity for both the years of 2006 and 2011. The dependent variables are voter turnout in the latest parliamentary election, voter turnout in the latest presidential election, and the percentage of the population of each country who had participated in a demonstration in the past.

Providing a way to operationalize the factors of non-formal education, data was collected from the Eurostat Adult Education Survey (AES) for the years of 2006 and 2011 to provide the percentage of people per country evaluated who reported participating in job-related learning activities in those years. This survey was conducted by each of the countries of the European Union (EU) and the European Free Trade Association (EFTA), and it is included within the EU statistics on lifelong learning. The survey was focused on individuals between the ages of twenty-five and sixty-four who lived in private households. The surveys for 2006 were conducted between 2005 and 2008, and those for 2011 were carried out between July 2011 and June 2012. To measure the latest voter turnout percentages for both the parliamentary and presidential elections within each country, data from the International Institute for Democracy and Electoral Assistance (IDEA) is employed. This database includes all voting statistics available since 1945 and is constantly being updated as new data is provided. In addition, the recent World Values Survey is employed to measure citizen's attendance in demonstrations. The cross-national survey of 2010 provided by this organization included a question intended to measure the unconventional political action of participating in demonstrations of each respondent. The minimum sample size of the surveys submitted was 1000 people between the ages of 18 and 85. The surveys were executed in a face-to-face interview setting.

Job-related learning activities are considered important for this study because of the access to the data as well as the presence of many important characteristics or factors that push citizens to become involved in such activities. Briefly mentioned was the role of political efficacy in attracting individuals to become active in the political realm. This sense of self-confidence in politics allows a person to be comfortable enough to join a political rally or campaign, vote for the candidate he or she believes will best serve the position as well as even writing a letter to a congressman about an important issue that he or she feels needs to be addressed. Also, the ambition one has to push himself toward bettering his career through participating in job-related learning activities would also be useful in steering him toward political engagement. If an individual is driven in one area, it is more likely that he or she will be ambitious in other areas in life as well. Where other forms of non-formal education would have also sufficed for analysis, the information for the job-related learning activities was most accessible.

2. Hypotheses

Given the above operationalizations of the variables, it is possible to produce several research hypotheses as the following:

- (1) The higher level of job-related learning activities, the higher voting turnout in parliamentary elections in the post-socialist countries.
- (2) The higher level of job-related learning activities, the higher voting turnout in the presidential elections in the post-socialist countries.
- (3) The higher level of job-related learning activities, the higher level of participation in lawful demonstrations in the post-socialist countries.

Post-socialist countries share similar histories, due to the approximate times of their regime changes. The fall of the Soviet Union provided an opportunity for most of these countries to change governmental roles or choose completely new forms of government. This commonality indicates a period where the entire structure of the international structure changed in a major way. Particularly important was the ability for these countries to incorporate non-formal educational systems, as well as a change in the relationship of the citizens to their duties of political participation. However, only data beginning with the year 1990 and continuing on to the present day were chosen due to data discrepancies during the previous years. Where these new standards of elections began as far back as 1990, when the major regime-shift began, the relative data is not present. Whereas there are a few instances in which appropriate data can be found for specific countries, not all of them have such information. In that case, the first year in which all cases have submitted data will be the starting point for the collection, and it will continue up until the latest elections, which exist up until 2011. Specifically selected were the dates for the latest parliamentary and presidential elections for which there is information for each of the countries included. The model includes the following countries for evaluation: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. The raw data sets for each of these countries are shown in Appendix A.

Although this data exists for almost all entities considered, it is not entirely the case. Data could not be found for the countries of Albania, Armenia, Azerbaijan, Belarus, Bosnia, Macedonia, Moldova, Mongolia, Montenegro, Tajikistan, Turkmenistan, Ukraine, or Uzbekistan for one or more of the variables used. For these reasons, these post-communist countries which do not provide the data for both variables have to be excluded.

III. Findings

With the data that has been collected from the World Values Survey, the Eurostat Adult Education Survey, and the IDEA survey for each of the variables involved, a correlation analysis were performed. Table 1 shows descriptive statistics of variables. As

is shown, out of the 28 post-socialist countries originally selected, only 11 were used in the analysis of job-related learning activities in both 2006 and 2011. Column 3 includes the minimum percentages shown within each variable, and column 4 provides the statistics for the highest percentages shown. Column 5 provides the mean data sets for all of the countries examined.

<Table 1> Descriptive Statistics of Variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Job Related Learning Activities in 2006	11	70.80	96.30	86.91	7.04
Job Related Learning in 2011	11	72.40	94.40	84.12	6.32
Voter Turnout of Latest Parliamentary Election	28	35.91	93.87	61.56	13.51
Voter Turnout of Latest Presidential Election	24	42.41	96.70	64.75	16.65
Attending Lawful Demonstrations Have Done	11	4.50	27.80	13.71	7.08

Sources: The World Values Survey; International Institute of Democracy & Electoral Systems; and Eurostat Adult Education Survey.

For those who participated in job-related learning activities in 2006, Slovenia held the position for the lowest percentage of 70.80% of the population, and the highest percentage came from Bulgaria with 96.30% of its population having participated. On average, 86.91% of people participated in job-related learning activities that year. Not much difference is observed during the year 2011 in the statistics. The minimum percentage is shown once again in Slovenia with 72.40% of its population having participated, and the maximum percentage is found again in Bulgaria with 94.40%. Together, all of the countries propose a mean of 84.12% for 2011.

Because almost all of the 28 post-socialist countries had readily-accessed data for voter turnout during the latest presidential and parliamentary elections, all possible data was collected for the statistical table. The lowest percentage of voter turnout for the latest parliamentary election is found in Lithuania with 35.91% of its citizens having participated, and the highest percentage was in Turkmenistan with 93.87%. On average, 61.56% of the population between each of the 28 countries analyzed voted in their most recent parliamentary elections. Voter turnout for the latest presidential elections did not dramatically differ, although only 24 of the 28 countries were analyzed for this variable. 42.41% of Slovenians voted in the most previous election, producing the lowest turnout rate observed, whereas Turkmenistan again held the highest percentage of 96.70%. The calculated mean is shown at 64.75%.

Table 2 gives the analysis of the correlation between variables. Job-related learning activities in both 2006 and 2011 have been set with the three categories of voter turnout of the latest parliamentary election, voter turnout of the latest presidential election, and people who have attended lawful demonstrations. Each section is measured by the Pearson's R correlation coefficient and the probability factor of significance (2-tailed). The number of units within the sample has also been recorded under each variable. Pearson's R is measured on a scale of zero to one, where zero signifies no correlation and one denotes a perfect relationship between variables. In measuring the independent variable used for non-formal education and the dependent variables used for political participation, according to the table there is a weak correlative relationship.

<Table 2> Correlations of Variables

Independent Variables (NFE)		Voter Turnout of Latest Parliamentary Election	Voter Turnout of Latest Presidential Election	Attending Lawful Demonstration Have Done
Job Related Learning Activities in 2006	Pearson Correlation	-0.083	0.501	0.397
	Sig. (2 Tailed)	0.808	0.206	0.226
	N	11	8	11
Job Related Learning Activities in 2011	Pearson Correlation	-0.481	-0.032	-0.12
	Sig. (2 Tailed)	0.134	0.94	0.74
	N	11	8	10

Source: The World Values Survey; International Institute of Democracy & Electoral Systems; and Eurostat Adult Education Survey.

Looking at the row for job-related learning activity in 2006, there is actually a slight negative relationship with parliamentary election voter turnout. This indicates that those who participated in such activities during the year of 2006 were less likely to vote in the parliamentary election for the most recent year. However, the next column shows a good positive relationship between the independent and dependent variables. Looking at the last column, the relationship is again weak, but is positively correlated. The probability of each dependent variable in reference to the independent variable is insignificant, because each reaches a number higher than the 0.05 level.

Moving down to the job-related learning activity row for 2011, it is shown that it negatively correlates with all three dependent variables. Presidential voter turnout and attendance of lawful demonstrations are both significantly weak correlations, whereas

voter turnout for the parliamentary elections is slightly stronger. Again, it is shown that the probability of the relationship of the dependent variables with the independent variable is insignificant, due to the fact that the 2-tailed test of significance produces values over 0.05.

Given the above findings, a model for the hypothesis cannot be produced. The hypothesized positive correlations between the independent and dependent variables were not present, and in some cases reversed in the opposite direction to show negative correlation, albeit insignificant. This finding is surprising, as the literature indicated that a positive relationship should have occurred. In turn, this means that the findings Kuenzi provided in her research in Senegal do not necessarily insinuate the same results for the post-socialist countries.

IV. Conclusions

Reflecting upon the general question of this research, how non-formal education affects the rates of political participation in the post-socialist countries, allows for a summation of information found throughout the study. Such a subject is of interest to both scholars and policy makers for its potential guiding information on how to best continue down the road of education with a goal of raising political participation. The information gathered through this study is intended to provide insight into whether or not it is worth it for the politicians of a country to continue to administer the funds for non-formal education. After a close examination of the data, one can see that the lack of a correlative relationship between the two variables points toward a better allocation of a government's resources than investing in non-formal education if the goal is boosting participation in the political sphere. Also contributing to the literature is an addition to the lack of research conducted on the issue. There has been much written in the way of formal education and political participation, but there is scarce information on the tie with non-formal education, and where there are studies, it lacks the viewpoint of the post-socialist countries.

Kuenzi reports that the results found through her research indicate that NFE has a positive effect on civic participation in relation to her work in Senegal. However, this does not translate to a similar study on post-socialist countries. In fact, the data surprisingly shows that non-formal education through learning in job-related activity has no semblance of correlation with the levels of political participation within a country, at least in terms of voter turnout and participation in demonstrations. Through an analysis conducted between an independent variable of job-related learning activity during the years of 2006 and 2011 and the dependent variables of voter turnout in both the latest parliamentary and presidential elections as well as past participation in demonstrations, a correlation could not be found. The Pearson R correlation coefficient and the two-tailed test of significance were employed, and the results produced were different, and in some

cases opposite, of the anticipated results. This may indicate that non-formal education may only produce the skills and characteristics needed for such participation without actually leading to correlation with political participation itself (Berinsky & Lenz, 2010).

Although the data collected for this study was not perfect, time and resources limited the availability of the data as well as the ability to correct some of the issues by inserting additional quantitative data. With such restrictions, it was difficult to proceed further. However, in the presence of more time, a different perspective could have been proposed for the field. Future studies may include an evaluation across regions, and possibly even a universal evaluation. Also significant would be the inclusion of multiple variables to test against the independent variable of political participation - how does non-formal education fare against other factors that affect political participation, such as formal education, level of income, level of democracy within the selected countries, type of government, or even the political culture. Such modifications are thought to produce more thorough results as well as even more significant findings.

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ORIGINAL ARTICLE

Care Service Staff's Awareness of the Management of Undernutrition in Japan

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ABSTRACT

This study aimed to help develop collaborative care models for care service staff working in homes and residential facilities to implement measures for the improvement of undernutrition in terms of nursing care. The survey is care service staff's awareness of undernutrition including required information. Although nursing care providers were aware of the overall care-related needs of their care recipients, they were in somewhat knowledgeable level about the nutritional health/functioning status that can be assessed by the nutritional condition indices such as the BMI(body mass index) and serum albumin level. The results of this study suggest that the level of nursing care service providers' awareness of the improvement of undernutrition of the elderly in need of nursing care was not high; although in-home nursing care providers understood the overall picture of services or their tasks including the levels of nursing care required by elderly patients and their levels of independence in ADL(activities of daily living) according to their degrees of disabilities or dementia, they did not comprehend the nutritional status of their patients such as the styles of diet and intake of meals; and nursing care service providers in residential facilities were aware of the nutritional status of their patients, although they were not unable to understand the overall picture of services. There were significant differences in the levels of the awareness of the improvement of undernutrition by the types of nursing care-related professions ; for example, while consultants were only aware of the basics of services like the level of nursing care required by patients, nursing care providers understood the styles of diet as well as dental and choke-related conditions and health care professionals comprehended the intake of meals, BMI, and serum albumin level. The study results suggest that it is necessary to develop tools for the collection of care service-related information and assessment to be shared by care service staff to improve undernutrition to prevent the elderly from becoming to require higher levels of nursing care.

<Key-words>

the elderly in need of nursing care, the prevention of the elderly from becoming to require higher levels of nursing care, improvement of undernutrition, the level of nursing care

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I . Background and Purpose of the Study

Undernutrition is one of the factors causing the elderly to require nursing care. The revision of the Long-Term Care Insurance Act in 2006 set the aim of preventing the elderly from becoming to require higher levels of nursing care, and adopted the improvement of undernutrition as the primary goal. Its effects, however, have not been shown yet. According to “A Study of the Comprehensive Assessment and Analysis of the Effects of Projects for Nursing Care Prevention” (Tsuji et al., 2008), approximately 30% of the elderly who needed “nursing care or support” are required to improve their nutritional conditions even after the introduction of the Project for Nursing Care Prevention.¹⁾ As suggested by the results of this study, the undernutrition of the elderly is as serious an issue as the elderly in need of (a high level of) nursing care, and the improvement of undernutrition of the elderly is an urgent task. Therefore, it is necessary to develop specific measures for the improvement of undernutrition of the elderly in terms of nursing care.

This study that included the survey on the awareness of the improvement of undernutrition of the elderly in need of nursing care aimed to help develop collaborative care models for care service staff in homes and residential facilities to implement measures for “the improvement” of undernutrition in terms of nursing care; The development of the model is expected to specifically help implement the improvement of undernutrition, which is the policy established by the revision of the Long-Term Care Insurance Act in 2006, in terms of nursing care.

As the percentage of population aged 60 years or over of Japan was 32.0% of the total population by 2050 according to the report of UN in 2013²⁾, this study may serve as a significant guide to reduce social security expenses that have continually increased in the world where the population is rapidly ageing.

<Table 1> Specific Elderly People who may become the need of Nursing Care and the Elderly in need of Nursing Care and Nutritional Improvement

	Elderly not requiring nutritional improvement	Elderly requiring nutritional improvement		
		Body weight loss	Low body weight	Body weight loss and low body weight
Specific elderly people who may become the need of nursing care	1,503	311	171	82
	72.7%	15.0%	8.3%	4.0%
Elderly people in need of nursing care	4,795	1,102	755	361
	68.4%	15.7%	10.8%	5.1%

This table was excerpted from “A Study of the Comprehensive Assessment and Analysis of the Effects of Projects for Nursing Care Prevention (2008)”

II. Study Methods

- (1) Study Design: Quantitative and descriptive study
- (2) Period: April, 2013 to March, 2014
- (3) Survey Items: The survey items included nutritional conditions (BMI, serum albumin level, dietary style, and food intake), physical and psychological functions (the levels of required nursing care and the levels of independence in ADL (activities of daily living) of the elderly according to their degrees of with disabilities, dementia, and the ability to move), and oral functions (dental and choke-related conditions). In previous studies conducted by the authors of this study, it was found that these survey items were associated with the dietary habits of the elderly in need of nursing care and the nutritional conditions of the elderly who preferred soft food were worse than those who did not.³⁾⁴⁾
- (4) Data Collection and Analysis Methods: The survey on care service staff's awareness of the improvement of undernutrition of the elderly in need of nursing care was conducted by distributing and collecting questionnaires during workshops that were held in seven areas including Akita, Saitama, Tokyo, Shizuoka, Aichi, Okayama, and Oita Prefectures in Japan when the authors served as an instructor. The questionnaire was constructed based on the Likert scale, and the care service staff were asked to choose one of four options in response to each question. The collected data from the survey were analyzed via statistical software SPSS Ver.20.0 to understand care service staff's awareness of the improvement of undernutrition of the elderly in need of nursing care.

III. Ethical Considerations

The following information was explained to the subjects: Responding to the survey must be based on their own free will. The survey was conducted anonymously. Obtained data would be coded, analyzed, and used only for this study. Only people who had agreed to participate in this study responded to the questionnaire and the completion of the questionnaire was regarded as the consent to participate in this study. This study was conducted with the approval of the Ethics Committee of the Juntendo University Faculty of Health Sciences and Nursing (Approval number: 25003).

IV. Study Results

The survey for care service staff was conducted in seven areas of Japan to examine their awareness of the improvement of undernutrition of the elderly in need of nursing care, and 641 questionnaires were collected; the numbers of the respondents who provided care services for the elderly in homes and residential facilities were 225 (35.1%)

and 416 (64.9%), respectively; and there were 138 males (21.5%) and 503 females (78.5%) respectively. As to the types of profession, there were 238 nursing care service providers (37.1%), 207 health care professionals (32.3%), and 196 consultants (30.6%); the mean period of work experience was 7.15 ± 6.7 years.

The majority of the respondents were aware of the overall care-need status of their care recipients. However, most respondents were “somewhat” or “not” knowledgeable about the nutritional health/functioning status of their care recipients including the BMI and serum albumin level; the numbers of respondents who were somewhat and not knowledgeable about the BMI were 313 (48.8%) and 128 (20.0%) respectively; and the numbers of respondents who were somewhat knowledgeable and not knowledgeable about the serum albumin level were 287 (44.8%) and 222 (34.6%), respectively (Table 2).

Although these two items are important indices to understand nutritional conditions, care service staffs were only in the somewhat-knowledgeable level.

<Table 2> Care Service Staff s' Awareness of the Improvement of Undernutrition (n=641)

	Very knowledgeable about	Knowledgeable about	Somewhat knowledgeable about	Not knowledgeable about
Level of requiring nursing care	184	359	87	11
Degree of independence in daily activities in the elderly with disabilities	87	295	197	62
Degree of independence in daily activities in the elderly with dementia	92	310	175	64
BMI	54	146	313	128
Alb	19	113	287	222
Dietary style	194	379	57	11
Food intake	111	317	185	28
Ability to walk	204	369	55	13
Dental conditions	93	374	155	19
Susceptibility to choking / aspiration	156	403	69	13

The levels of the awareness of the care service staffs of the improvement of undernutrition of the elderly in need of nursing care were compared with where they work via the non-parametric test; there were correlations between where they work such in the home or residential facility and their levels of awareness of nutritional condition indices, which show their levels of awareness of the improvement of undernutrition of the elderly in need of nursing care, such as the levels of required nursing care, the levels of independence in ADL of the elderly with disabilities or dementia, serum albumin level, dietary styles, food intake, and dental and choke-related conditions ($p < 0.05$). Although

most respondents who have been providing in-home nursing care services stated that they are somewhat knowledgeable about the BMI and serum albumin level, they were very knowledgeable or knowledgeable about the levels of required nursing care and the levels of independence in ADL of the elderly with disabilities or dementia and they were knowledgeable or somewhat knowledgeable about dietary styles, food intake, and dental and choke-related conditions (Table 3). Respondents who have been providing nursing care services in residential facilities were knowledgeable or somewhat knowledgeable about the levels of required nursing care and the levels of independence in ADL the elderly with disabilities or dementia and were very knowledgeable or somewhat knowledgeable about dietary styles, food intake, and dental and choke-related conditions (Table 3).

<Table 3> The Levels of the Awareness of the Care Service Staffs of the Management of Undernutrition of the elderly in need of long-term care : Comparisons by Where They Work

	Very knowledgeable about		Knowledgeable about		Somewhat knowledgeable about		Not knowledgeable about	
	In-home	Residential	In-home	Residential	In-home	Residential	In-home	Residential
Level of requiring nursing care	58.7%+	12.5%-	34.7%-	67.5%+	5.3%-	18.0%+	1.30%	1.90%
Degree of independence in daily activities in the elderly with disabilities	24.4%+	7.7%-	54.7%+	41.3%-	17.8%-	37.7%+	3.1%-	13.2%+
Degree of independence in daily activities in the elderly with dementia	26.7%+	7.7%-	56.9%+	43.8%-	12.9%-	35.1%+	3.6%-	13.5%+
BMI	6.20%	9.60%	19.10%	24.80%	57.3%+	44.2%-	17.30%	21.40%
Alb	0.0%-	4.6%+	7.6%-	23.1%+	56.4%+	38.5%-	36.00%	33.90%
Dietary style	18.2%-	36.8%+	65.3%+	55.8%-	13.8%+	6.3%-	2.70%	1.20%
Food intake	4.4%-	24.3%+	34.2%-	57.7%+	53.8%+	15.4%-	7.6%+	2.6%-
Dental conditions	7.6%-	18.3%+	58.20%	58.40%	31.6%+	20.2%-	2.70%	3.10%
Susceptibility to choking / aspiration	15.1%-	29.3%+	65.80%	61.30%	16.4%+	7.7%-	2.70%	1.70%

Pearson χ^2 test: $p < 0.05$ Adjusted residuals: 2.0 or higher +, 2.0 or lower -

The levels of awareness of the improvement of undernutrition of the elderly in need of nursing care were also compared with the types of professions such as nursing care service providers, health care professionals, and consultants. There were correlations between the types of professions and their levels of awareness of nutritional condition indices, which show their levels of awareness of the improvement of undernutrition of the elderly in need of nursing care such as the levels of requiring nursing care, the levels of independence in ADL of the elderly with disabilities or dementia, BMI and serum albumin level, dietary style, food intake, and dental and choke-related conditions

($p < 0.05$). The results were consistent with the above-mentioned correlations. Although most respondents stated they were somewhat knowledgeable about the BMI and serum albumin level, consultants were very knowledgeable about the levels of required nursing care and the levels of independence in ADL the elderly with disabilities or dementia and nursing care service providers were very knowledgeable about dietary styles and dental and choke-related conditions. Most health care professionals were very knowledgeable about food intake. Although most respondents stated that they were somewhat knowledgeable or not knowledgeable about the BMI or serum albumin level, the majority of health care professionals were knowledgeable about them (Table 4).

<Table 4> The Levels of the Awareness of the Care Service Staff of the Management of Undernutrition of the Elderly in need of Long-term Care
: Comparisons by the Types of Nursing-Care-Service-Related Professions

	Very knowledgeable about			Knowledgeable about			Somewhat knowledgeable about			Not knowledgeable about		
	Nursing care service providers	Health care professionals	Consultants	Nursing care service providers	Health care professionals	Consultants	Nursing care service providers	Health care professionals	Consultants	Health care professionals	Medical specialists	Consultants
Level of requiring nursing care	8.0%+	16.4%+	66.8%+	73.9%+	60.90%	29.1%+	16.80%	20.8%+	2.0%+	1.30%	1.90%	2.00%
Degree of independence in daily activities in the elderly with disabilities	3.8%+	11.10%	28.1%+	40.3%+	43.50%	55.6%+	40.8%+	35.30%	13.8%+	15.1%+	10.10%	2.6%+
Degree of independence in daily activities in the elderly with dementia	5.0%+	10.1%+	30.1%+	42.9%+	47.30%	56.1%+	37.8%+	31.40%	10.2%+	14.3%+	11.10%	3.6%+
BMI	3.8%+	14.5%+	7.70%	18.5%+	29%+	21.40%	47.50%	44.00%	55.60%	30.3%+	12.6%+	15.30%
Alb	1.70%	6.8%+	0.5%+	11.8%+	33.3%+	8.2%+	42.00%	39.60%	53.6%+	44.5%+	20.3%+	37.80%
Dietary style	36.1%+	34.80%	18.4%+	58.40%	52.7%+	66.8%+	5.0%+	9.70%	12.8%+	0.40%	2.90%	2.00%
Food intake	21.4%+	24.6%+	4.6%+	59.2%+	49.80%	37.2%+	16.4%+	22.7%+	50.5%+	2.90%	2.90%	7.7%+
Dental conditions	24.4%+	9.7%+	7.7%+	58.80%	56.00%	60.20%	15.1%+	30.0%+	29.10%	1.70%	4.30%	3.10%
Susceptibility to choking / aspiration	36.6%+	18.8%+	15.3%+	57.1%+	64.70%	67.90%	5.5%+	14.5%+	13.30%	0.80%	1.90%	3.60%

Pearson χ^2 test: $p < 0.05$ Adjusted residuals: 2.0 or higher +, 2.0 or lower -

V. Discussions

It has been pointed out that “undernutrition” is a major factor leading the elderly to become to require higher levels of nursing care, and the revision of the Long-Term Care Insurance Act in 2006 stipulated nutritional management for the improvement of undernutrition as part of the project for nursing care prevention.⁵⁾ The results of an assessment of the effects of the project for nursing care prevention in 2008, however, showed that approximately 30% of the elderly were required to improve their nutritional conditions.¹⁾

Previous studies suggested that the nutritional conditions are correlated with physical and psychological functions,⁶⁾⁷⁾ and that the morbidity and mortality rates of the elderly in need of nursing care have increased when their nutritional conditions have worsened.⁸⁾

Although the development of plans for nutrition management, which was introduced in 2006, is compelled by law, nationally registered dietitians are responsible for the creation of plans, and there has been the concern about a lack of specific measures that may be implemented at each level of nursing care. In this study, a survey on the status of the development of plans for the nutrition management was conducted.

To discuss the status of measures at the level of nursing care and required information, the survey for care service staff working in homes and residential facilities in seven areas of Japan was conducted to examine their awareness of the improvement of undernutrition of the elderly in need of nursing care, and 641 valid questionnaires were collected. Although the care service staffs were aware of the overall care-need status of their care recipients, they were not knowledgeable or somewhat knowledgeable about the indices of nutritional conditions such as BMI and serum albumin level that shows the nutritional health/functioning status. The results suggest that the level of care service staff's awareness of the improvement of undernutrition of the elderly in need of nursing care is not high.

There were differences in levels of the awareness of the improvement of undernutrition by whether care service staff work in homes or residential facilities. Although in-home nursing care service providers understood the overall picture of services or the basics of their services including the levels of requiring nursing care and the levels of independence in ADL of the elderly with disabilities or dementia, they did not comprehend the overall care-need status of the elderly in need of nursing care such as the styles of diet and intake of meals as well as dental and choke-related conditions. On the other hand, nursing care service providers in residential facilities were aware of the overall care-need status of the elderly in need of nursing care in terms of care, although they were unable to understand the overall picture of services.

There were also differences in the levels of the awareness of the improvement of undernutrition among various care-service-related professions including consultants, nursing care providers, and health care professionals. Consultants completely understood the overall picture of the basics to take care of the elderly such as the levels of required nursing care and the levels of independence in ADL of the elderly with disabilities or dementia. While nursing care providers were very knowledgeable about the dietary habits of the elderly as well as their dental and choke-related conditions, health care professionals were very knowledgeable about the intake of meals of the elderly and knowledgeable about the BMI and serum albumin level. The results suggested that nursing care providers and health care professionals were able to comprehend the status of the elderly in terms of nursing care.

These differences in the levels of the awareness of care service staff may be caused by the characteristics of the services that they have provided and the professions that they have joined, or by the current status that the measures for nutritional management have not been implemented consistently at the level of nursing care yet. In addition, the "basic

check list for the prevention of withdrawal”, an assessment method to select subjects for “nutritional management”, includes only two nutrition-related items: “Have you lost more than 2 to 3 kg over the past six months?” and “the height, body weight, and BMI”, and the assessment scores were not associates with the level of nursing care.

The study results suggest that it is an urgent task to develop tools to be shared by diverse care service staff in homes and in residential facilities including nursing care providers, health care professionals, and consultants with the aim of improving undernutrition of the elderly in need of nursing care.

VI. Limitation of the study

This study examined care service staff's awareness of the improvement of undernutrition of the elderly in need of nursing care. However, the survey was only conducted for individual providers, but not for nursing care setting or homes or residential facilities.

Collaborative care models for care service staff in homes and residential facilities to implement measures for the improvement in terms of nursing care cannot be developed solely based on the results of this study. Further research that includes the survey on the nutritional conditions of the elderly in need of nursing care should be conducted. The study results suggest that it is necessary to develop tools designed to improve undernutrition of the elderly in need of nursing care that can be shared by care service staff and other professionals in homes and residential facilities

VII. Conclusion

The survey on the awareness of improvement of undernutrition of the elderly in need of nursing care was conducted for care service staff in homes and residential facilities, and the results suggested that the levels of care service staff's awareness of the improvement of undernutrition was not high. There were significant differences in the levels of the awareness of the improvement of undernutrition among care service staff depending on the types of services they have provided. Therefore, it is necessary to develop tools to be shared by care service staff who provide diverse types of care service with the aim of improving undernutrition to prevent the elderly from becoming to require higher levels of nursing care.

This study is a part of the Development of Collaborative Nursing Care Models for In-home and Residential Care Settings to improve undernutrition of the elderly, which was designed to help prevent the elderly from becoming to require higher levels of nursing care and supported by Grants-in-Aid for Scientific Research (C).

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ORIGINAL ARTICLE

The Development of the Special Needs Education Assessment Tool (SNEAT) to Evaluate the Educational Outcome of Special Needs Education: Centering on the Content Validity Verification

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ABSTRACT

It is currently difficult to find the tools to assess educational outcome in the field of special needs education. Therefore, this study aimed to develop the tool to evaluate the educational outcome of special needs education, called as the Special Needs Education Assessment Tool(hereafter, the SNEAT), that will enable teachers to evaluate their classes according to the changes of children with disabilities; for the development of the SNEAT, its content validity was verified with the draft of the SNEAT. For the content validity verification of the SNEAT, the surveys via interview and questionnaire were conducted for the researchers for special needs education, teachers who are affiliated with educational research institutes run by Prefectural governments and in-service teachers. In results, over 90 percent of the respondents answered that it is valid, which showed that the content validity was verified. The scientific methods to verify the SNEAT in the field of Education, however, need to be explored in the future, because the content validity verification method is done based on the subjective opinions of respondents.

<Key-words>

Special Needs Education, Education Assessment, Special Needs Education Assessment Tool, Development of Scale, Content Validity Verification

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I . Background

Even though the evaluation of academic ability has been considered as the major way to evaluate the educational outcome, the difficulty lies to apply it in the setting of special support schools; thus, whether the goals of the class on independent activities have been achieved or not has been used as an indicator to evaluate the educational outcomes in the setting of special needs schools(Kohara & Han, 2014). The new Courses of Study pointed out that "for the evaluation of the class on independent activities, the validity of plans as well as the effects and evaluation of education should be sufficiently reviewed, because the goals and contents of guidance are individually set up"; both the learning of students and the practices of teachers during the class need to be evaluated. Suzuki (1995) emphasized the importance of evaluation by suggesting that the evaluation of students should be used to reflect the classes, to understand the changes of students and to determine the appropriacy of classes.

Nevertheless, it is difficult to find the tools that are built based on those aforementioned considerations and, moreover, it is hard to find the tools that have been scientifically verified and structured assessment tools. Nozaki, Kawasumi (2012) found that over 60 percent of in-service teachers have difficulty in the learning and practice evaluations by conducting the survey for school teachers on the learning evaluation and practice evaluation of special needs education, which presented the necessity of the development of education assessment tools for special support education. In this context, this study aimed to develop the Special Needs Education Assessment Tool(hereafter, the SNEAT) to enable to evaluate lesson evaluation according to the changes of students. This is a meaningful attempt, for it has not been tried in Japan by now.

Shimizu (2005) suggested that the tools should be developed by considering whom or how they would affect, because they are utilized in the educational environment and more broadly in our society and by sharing the information and the feedback that have been collected via expanded information network in the theoretical and practical aspects. That is to say, the SNEAT should be provided to the field of education after sufficiently discussing them with researchers and in-service teachers and verifying them theoretically and scientifically, because they are the first attempt to evaluate the educational outcome of special needs education in Japan

To develop the Special Needs Education Assessment Tool, this study planed the process as follows:

1. The determination of the composing concepts and the preparation of the question items
2. The implementation of the survey for experts including the teachers of educational institutes of prefectural governments(Content validity verification I)
3. The implementation of the survey for in-service teachers (Content validity verification II)

Finally the tool that was developed through the aforementioned process was named as Special Needs Education Assessment Tool(SNEAT).

II. Questionnaire Construction (The Determination of Composing Concepts and the Preparation of Question Items)

There are three methods to make tools such as theoretical method, factor analysis and criterion-related method(Murakami, 2008). However, because the development of SNEAT is the first try to evaluate educational outcome based on the changes of children with disabilities, it is difficult to construct questionnaire via factor analysis or criterion-related methods; therefore, the theoretical method was employed. Murakami (2008) defined the theoretical method as the process in which the subjects are logically reviewed, the items to ask are collected, question items are made and question items are analyzed and arranged statistically.

Kohara , Han et al.(2014) verified the utilization of health-related QOL(hereafter, HRQOL) to evaluate educational outcome¹ 1) to improve the quality of life(hereafter, QOL) of children with disabilities who are the subjects of special needs education and 2) to meet the necessity of the tools to evaluate educational outcome according to the QOL of children with disabilities. In results, it was confirmed that independent activities are related with HRQOL.

Based on those studies, the scale was constructed and question items were written. The composing concepts were determined to three scopes of physical functioning, mental health and social functioning that are common with the independent activities and the scopes of HRQOL and based on them, question items were collected. The question items were extracted from common contents and terms from independent activities and HRQOL; the ability of concentration was added, because it is considered as important for learning activities, even though it is included only in HRQOL, not in the contents of independent activities. The annotations of each item were written by referring to the contents or terms of the report on the practice of education that was used in the study of Kohara, Han et al.(2014).

The questionnaire was composed of three scopes such as physical functioning, mental health and social functioning and 11 question items. Finally the draft of the SNEAT has been made as aforementioned process.

¹ Kohara, Han et al.(2014) conducted their study by dividing the contents of special needs education into six kinds of independent activities and eight scopes of HRQOL(SF-36) based on the Report on the Practices of the Course of the Study of Special Needs Education in Okinawa Prefecture.

III. The Content Validity Verification

Content validity enables to confirm appropriacy and representativeness of contents to be measured according to the judgment of experts (Shimizu, 2005). Waltz et al. (1991) emphasized that content validity is an indispensable factor to measure the validity of composing concept and has to be most importantly considered when developing assessment tools. Shimizu (2005) described that it is critical to construct the tools of which the content validity is verified in the process of developing them and the inference from the scores that were gained by using the tools is affected by whether to secure the content validity or not; that is, it is necessary to accurately write the contents and language expression of questions. Generally the content validity verification is implemented for certain experts. However, considering that the SNEAT is a new scale in the field of special needs education and that the content validity may decrease because of the employment of the theoretical method to develop it, the content validity was verified by researchers, teachers who are affiliated with education research institutes run by prefectural government and in-service teachers to heighten the degree of the content validity.

1. The Content Validity Verification I (Survey for Experts)

1) Methods

The survey for experts including four researchers on special needs education and six teachers of Okinawa Prefectural Educational Center² was conducted in May, 2014. After the developers of the SNEAT explained the theoretical background and structure of the SNEAT to them, the discussion about the structure of questionnaire and the contents and terms of each item was held.

2) The Characteristics of Respondents

All the four researchers on special needs education were males and the average period of their research on special needs education was 17 ± 5.9 years. Among the six teachers of Okinawa Prefectural Educational Center, there were four males and two females and all of them possessed the teaching license for special needs education; there was a teacher who has more than 10-year teaching experience in the field of special needs education and a teacher who has the experience of administrative position; the average period of their teaching experience was 15.8 ± 2.9 years and their average age was 43 ± 4.2 years.

² Okinawa Prefectural Educational Center is a Okinawa Prefecture Education Committee-affiliated organization and has implemented the research on education and the training of education-related staff.

3) The Results from the Discussion about the Scopes of the SNEAT and the Terms and Contents of Its Question Items

<Table 1> The Results from the Survey on the Draft of the Contents and Terms of the SNEAT for Experts

Experts' Opinions	Before Changing	After Changing
Generally the concept of the students with disabilities who are the subjects of the class is not clear. Disabilities are divided into diverse types such as intellectual disability, physical disability, visual impairment, hearing impairment, etc. Therefore, it is not reasonable to try to measure the educational outcome without the consideration of the characteristics of those various types of disabilities.	No mentions about this in the SNEAT	The remarks was added to the SNEAT as follows: “The SNEAT can be used in the classes for the students with disabilities regardless of the types of their disabilities. 1. The students who can express themselves in any way. 2. The students with the possibility that their posture, motor ability and motions may be improved, even temporarily.
The concept of “understanding” is not clear, whether it is teachers' or children's.	“Q3. Could you become to understand the life management of the student via the class?” “Q4. Could you become to understand the condition of student's disabilities(diseases) more deeply via the class? “	“Q3. Has been the ability of student to independently manage daily living improved?” “Q4. Has been the degree of student's understanding his/her condition of diseases(disabilities) improved?”
The meaning of the term of “positive feeling” is not clear. And the improvement of the will to learn may be different according to the guidance of teachers, the will to learn of students and the degrees of disabilities.	“2) Please evaluate all the items between Q1 and Q 11”	The explanation was added to the section of annotation and, because respondents may not read the annotation, also added to the SNEAT as follows: “2) Please evaluate all the items of No. 11 and read the annotation.”

2. The Content Validity Verification II (Survey for In-service Teachers)

1) Methods

The survey for in-service teachers including 23 teachers in charge of both general affairs and teaching of special need schools in Okinawa Prefecture and 66 teachers who participated in the training course of Okinawa Prefectural Board of Education for obtaining teaching license by Teachers' License Law³ was conducted between June and July, 2014. After the developers of the SNEAT explained the theoretical background and structure of the SNEAT to them, the survey on the structure of questionnaire and the contents and terms of each item was held.

³ The training course for obtaining teaching license by Teachers' License Law is prepared for the in-service teachers who are possessing the teaching license, but want to obtain higher classes of the teaching license or others. In this study, this refers two kinds of training courses for obtaining the teaching license to teach the students with special needs.

2) Questionnaires

The basic characteristics of respondents were asked; age, sex, the period of teaching experience, the period of experience to teach students with special needs and whether to have a teaching license or not.

The questionnaire about the content validity of the SNEAT was consisted of 18 questions (Table2); question No.1 to 3 were about the content validity to determine scopes; question No.5 to 8 were about the content validity to determine the items of physical functioning; question No.10 to 13 were about the content validity to determine the items of mental health; and question No.15 to 17 were about the content validity to determine items of social functioning. The answers were given based on five-point scale; very valid, valid, limitedly valid, in-valid and very in-valid. The question No. 4, 9, 14 and 18 were made open-ended style to enable respondents to write their opinions about the each scope and items of the SNEAT.

<Table 2> The questionnaire about the content validity of the SNEAT

No.	Questions	Evaluation Methods
Question No. 1	Do you think that it is valid to include the scope of "physical functioning" in the SNEAT, when evaluating the educational outcome of special needs education?	Five-point Scale
Question No. 2	Do you think that it is valid to include the scope of "mental health" in the SNEAT, when evaluating the educational outcome of special needs education?	Five-point Scale
Question No. 3	Do you think that it is valid to include the scope of "social functioning" in the SNEAT, when evaluating the educational outcome of special needs education?	Five-point Scale
Question No. 4	Please feel free to write down any opinions about the contents and terms of each scope of the SNEAT.	Open-ended
Question No. 5	Do you think that it is valid to include Q1(Were the activities during the class appropriate for the physical conditions of students?) in the composing items of "physical functioning"?	Five-point Scale
Question No. 6	Do you think that it is valid to include Q2(Have been the posture, motor ability and motions of student improved?) in the composing items of "physical functioning"?	Five-point Scale
Question No. 7	Do you think that it is valid to include Q3(Could you become to understand the life management of the student via the class?) in the composing items of "physical functioning"?	Five-point Scale
Question No. 8	Do you think that it is valid to include Q4(Could you become to understand the condition of student's disabilities(diseases) more deeply via the class?) in the composing items of "physical functioning"?	Five-point Scale
Question No. 9	Please, feel free to write down your opinions about the contents and terms of each question from Q1 to Q4 of the SNEAT.	Open-ended
Question No. 10	Do you think that it is valid to include Q5(Has the feelings of student changed positively when comparing it before the class with after the class?) in the composing items of "mental health".	Five-point Scale
Question No. 11	Do you think that it is valid to include Q6(Did the student participate in class(learning/activities) in concentration?) in the composing items of "mental health"?	Five-point Scale
Question No. 12	Do you think that it is valid to include Q7(Has been the will of student to learn improved via the class?) in the composing items of "mental health"?	Five-point Scale
Question No. 13	Do you think that it is valid to include Q8(Could the student respond to the changes of place and situation (the changes of environment) during class?) in the composing items of "mental health"?	Five-point Scale
Question No. 14	Please, feel free to write down your opinions about the contents and terms of each question from Q5 to Q8 of the SNEAT.	Open-ended
Question No. 15	Do you think that it is valid to include Q9(Could the student form a relationship with others during the class(interactions)?) in the composing items of "social functioning"?	Five-point Scale
Question No. 16	Do you think that it is valid to include Q10(Could the student express his/herself by choosing appropriate communication ways?) in the composing items of "social functioning"?	Five-point Scale
Question No. 17	Do you think that it is valid to include Q11(Did the student participate in the class activities with understanding class rules and controlling his/her behaviors?) in the composing items of "social functioning"?	Five-point Scale
Question No. 18	Please, feel free to write down your opinions about the contents and terms of each question from Q9 to Q11 of the SNEAT.	Open-ended

3) Ethical Considerations

The written explanation for the purpose and methods of study and the ethical consideration was given to respondents. In the written explanation was the contact information on the research to ensure the right to ask questions. The questionnaire was collected anonymously to guarantee the anonymity of respondents.

4) Results

i. Characteristics of Respondent

<Table 3> Characteristics of Respondent

1. Age	40.1±8.3 years
2. Sex	30 males(33.7%) 57 females(64.1%) 2 no-responds (2.2%)
3. The average period of teaching experience	14.4±8.4 years
4. The average period of teaching experience in special needs schools	7.2±9 years
5. The teaching license for teaching the students with special needs	23 respondents(25.8%) possess the teaching license 64 respondents(72.0%) didn't possess 2 respondents(2.2%) didn't provide answer

ii. Results of Content Validity

The answers about the content validity were given based on five-point scale; very valid, valid, limitedly valid, in-valid and very in-valid. The 'very valid' and 'limitedly valid' were translated to be valid and the 'in-valid' and 'very in-valid' were translated to be in-valid.

In results of analysis, 90% of all items were valid(Table4). As to the content validity of Question 1 to Question 3, all the respondents except no-responds answered that they are valid; therefore, the validity of the structure of the SNEAT and its each scope was verified.

As to the validity of each item of physical functioning(Question 5 to 8), there were the answers of 'in-valid'; as to the Question 5, it was 1.1%; Question 6, 2.2%; Question 7, 3.4%; and Question 8, 4.5%. Respondents answered about the reason to have given 'in-valid', because there were two questions about the same class, which may cause the confusion, one was asking the state of the student during class and another was asking the state of the student after the class(the outcome of the class). In addition, there was a suggestion that the expression of 'Have ___ been improved?' might become better, if it changed to 'Could ___ be improved?'

As to the validity of each item of mental health (Question 10 to 13), while all the respondents agreed that Question 10 was valid except the no-response, 2.2% and 3.4% of respondents for Question 11 and 13 respectively answered that they were not valid. They presented the reason that they answered with 'in-valid', because they doubted that participating in the class in concentration may be included in the scope of mental health.

As to the validity of each item of mental health (Question 15 to 17), while all the respondents agreed that Question 16 was valid except the no-response, 1.1% and 2.2% of respondents for Question 15 and 17 respectively answered that they were not valid. They presented the reason that they answered with 'in-valid', because the meaning of 'appropriate communication' is vague. In addition, there was a suggestion that 'choosing and expressing the ways of communication' may become better, if separating to two sentences.

<Table 4> The Results of the Survey on the Validity of Each Scope and Question Item

Questions		Valid N(%)			In-valid N(%)		No-respons e N(%)
		Very valid	Valid	Limitedl y Valid	In-vali d	Very In-vali d	
		N(%)	N(%)	N(%)	N(%)	N(%)	
Q1	The inclusion of the scope of “physical function”in the SNEAT	87(97.8)			0(0.0)		2(2.2)
		39(43.8)	37(41.6)	7(7.9)	0(0.0)	0(0.0)	
Q2	The inclusion of the scope of “mental health”in the SNEAT	87(97.8)			0(0.0)		2(2.2)
		39(43.8)	43(48.3)	5(5.6)	0(0.0)	0(0.0)	
Q3	The inclusion of the scope of “social functioning”in the SNEAT	86(96.6)			0(0.0)		3(3.4)
		48(53.9)	32(36.0)	6(6.7)	0(0.0)	0(0.0)	
Q5	The inclusion of Q1 in “physical functioning”of the SNEAT	86(96.7)			1(1.1)		2(2.2)
		42(36.0)	42(47.2)	12(13.5)	1(1.1)	0(0.0)	
Q6	The inclusion of Q2 in “physical functioning”of the SNEAT	85(95.6)			2(2.2)		2(2.2)
		29(32.6)	41(46.1)	15(16.9)	2(2.2)	0(0.0)	
Q7	The inclusion of Q3 in “physical functioning”of the SNEAT	83(93.2)			3(3.4)		3(3.4)
		24(27.0)	31(34.8)	28(31.5)	3(3.4)	0(0.0)	
Q8	The inclusion of Q4 in “physical functioning”of the SNEAT	84(94.4)			4(4.5)		1(1.1)
		22(24.7)	35(39.3)	27(30.3)	4(4.5)	0(0.0)	
Q10	The inclusion of Q5 in “mental health”of the SNEAT	87(97.8)			0(0.0)		2(2.2)
		33(37.1)	38(42.7)	16(18.0)	0(0.0)		
Q11	The inclusion of Q6 in “mental health”of the SNEAT	86(96.7)			2(2.2)		1(1.1)
		31(34.8)	38(42.7)	17(19.1)	2(2.2)	0(0.0)	
Q12	The inclusion of Q7 in “mental health”of the SNEAT	86(96.7)			2(2.2)		1(1.1)
		31(34.8)	41(46.1)	14(15.7)	2(2.2)	0(0.0)	
Q13	The inclusion of Q8 in “mental health”of the SNEAT	83(93.2)			3(3.4)		3(3.4)
		22(24.7)	33(37.1)	28(31.5)	3(3.4)	0(0.0)	
Q15	The inclusion of Q9 in “social functioning”of the SNEAT	82(92.2)			1(1.1)		6(6.7)
		30(33.7)	44(49.4)	8(9.0)	1(1.1)	0(0.0)	
Q16	The inclusion of Q10 in “social functioning”of the SNEAT	83(93.3)			0(0.0)		6(6.7)
		31(34.8)	38(42.7)	14(15.7)	0(0.0)	0(0.0)	
Q17	The inclusion of Q11 in “social functioning”of the SNEAT	81(91.1)			2(2.2)		6(6.7)
		26(29.2)	43(48.3)	12(13.5)	1(1.1)	1(1.1)	

iii. The Results of the Responses of the Open-ended Style Questions about the Contents Validity Verification

The questionnaire included the open-ended style questions to enable respondents to feel free to express anything about the content and the terms of the SNEAT. The SNEAT ver. 1 (Table 6) was completed by discussing the responses of the open-ended style questions with the experts on special needs education and QOL and the teachers in the prefectural education center and by adding and changing the contents and wording based on them (Table 5).

<Table 5> The Results of the Survey on the Contents and Terms of the SNEAT

Suggestions	Before Changing	After Changing
It is vague whether the SNEAT is for evaluating the student or the class.	Non-applicable	The explanation was added as follows: This is the tool for special education teachers to evaluate educational outcome (teacher self-assessment). In case of the class just for one student, you can assess your educational outcome based on the changes of the child; in case of the for more than two students, you can assess your educational outcome based on the average changes of all students (for example, as to the class for five students, you can figure out the average of the changes of all five students).
The SNEAT is constructed based on the five point scale, so the criteria are needed in each point to determine the point.	Non-applicable	This suggestion is relevant with all eleven questions, so 5=strongly agree, 4=agree, 3=neutral, 2=disagree and 1=strongly disagree were added; this scale was made based on the scale of WHOQOL26
It is better that the annotations are included in each question, not in a separated section.	The annotations was written in the separate section from the questions of the SNEAT.	The annotations were written together with each question.
There were two questions about the same class, which may cause the confusion, one was asking the state of the student during class and another was asking the state of the student after the class (the outcome of the class).	Q1, Q6 and Q10 were about the state of the student "during the class"; Q2, Q3, Q4 and Q7 were about the state of the student "via the class"; and Q5 was about the state of the student "when comparing it before the class with after the class".	The expressions that may cause the confusion were changed; in the Q1, the question was changed to include "The contents that was given during the class..." and in the Q2 to Q11, "The student..."

<Table 6> SNEAT ver.1

Special Needs Education Assessment Tool (SNEAT)Ver.1																																									
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Total ①+②+③					/100																																				
① Physical Functioning <table border="1"> <thead> <tr> <th></th> <th>Strongly agree</th> <th>Agree</th> <th>Neutral</th> <th>Disagree</th> <th>Strongly disagree</th> </tr> </thead> <tbody> <tr> <td>Q1 Were the activities during the class appropriate for the physical conditions of the student? 「Physical conditions」 include body temperature, physical strength, pain, etc</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td>Q2 Have been the posture, motor ability and motions of student improved?</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td>Q3 Has been the ability of student to independently manage daily living improved? 「Managing daily living」 includes rhythm of life, taking meals, defecating, taking medicine, changing clothes, taking a rest, etc.</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td>Q4 Has been the degree of student's understanding his/her condition of diseases(disabilities) improved?</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> </tr> <tr> <td colspan="5">① Total Score of Physical Functioning</td> <td>/35</td> </tr> </tbody> </table>							Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Q1 Were the activities during the class appropriate for the physical conditions of the student? 「Physical conditions」 include body temperature, physical strength, pain, etc	5	4	3	2	1	Q2 Have been the posture, motor ability and motions of student improved?	5	4	3	2	1	Q3 Has been the ability of student to independently manage daily living improved? 「Managing daily living」 includes rhythm of life, taking meals, defecating, taking medicine, changing clothes, taking a rest, etc.	5	4	3	2	1	Q4 Has been the degree of student's understanding his/her condition of diseases(disabilities) improved?	5	4	3	2	1	① Total Score of Physical Functioning					/35
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Calculation	Please, do the sum of three sub-totals	Double the scores of all questions except the scores of Q1 and Q2, so the score of five become to be ten, four to eight, three to six, two to four and one to two except the scores of Q1 and Q2.																																							

IV. Discussion

Special needs education is the new area to be launched in earnest since 2008. Moreover, in recent, the interest in special needs education has been expanded to the development and growth, self-supporting life and social participation and the improvement of QOL of students as well as their academic achievement. In this situation, this study employed the theoretical method to figure out the appropriate contents and question items for the development of the Special Needs Education Assessment Tool(SNEAT) in the field of special needs education in Japan. The contents validity was verified by the teachers in special needs education research institutes of prefectural governments and in-service teachers as many as possible, because the SNEAT is the tool to measure the educational outcome and has to be utilized in the field of special needs education.

The percentage of the in-service teachers who possessed the teaching license was 25.8% among all the respondents. Among the teachers who are working at special education schools, 71.1% of teachers possess the teaching license for the students with special needs and 28.9% don't. Because these figures were only from the full time teachers, however, if temporary teachers had been included in, the rate of possessing the teaching license for the students with special needs would have been much lower; to develop the SNEAT that may also be used by the teachers who do not possess the teaching license for the students with special needs, they also were included in the content validity verification.

In the results of the content validity verification of the SNEAT for in-service teachers, over 90% of respondents answered that it is valid. In particular, as to the validity of the scopes of the SNEAT(Q1 to Q3), all the respondents answered that it is valid, except no-responses. In results, it is reasonable to say that the content validity of the structure of the SNEAT was verified.

As to the survey on the contents and terms of the SNEAT, there were several suggestions about who can be the subjects of the SNEAT, the addition of the annotations, the criteria of the five-point scale, etc.

As to who can be the subjects of the SNEAT, there was the opinion that the types and the degree of disabilities are not clear. Even though special needs education includes the students in the wide range of developmental stages, considering the characteristics of the question items of the SNEAT, the subjects were determined to be the students who can express themselves in any way and those with the possibility that their posture, motor ability and motions may be improved, even temporarily. The annotations had been included in a separate section at first, but because there was the suggestion that they may be easily ignored or difficult in reading, they were located just below each question. The criteria of the scale were made based on the responses of WHOQOL26; 5=strongly agree, 4=agree, 3=neutral, 2=disagree and 1=strongly disagree. As to the use of terms, the terms that were determined to be easily used were chosen via the discussion with the researchers and teachers.

This study surveyed on the content validity of the questions of the SNEAT for special needs education-related professionals as many as possible, considering that this is the first try to develop the tool to evaluate the educational outcome of special needs education in Japan. However, Murakami (2008) pointed out that content validity has the defect that it is irrelevant with the attitude and the response tendency of the subjects, because it is conducted only for the question items. Therefore, the scientific methods to verify the SNEAT in the field of Education need to be explored, because the content validity verification method is based on the subjective opinions of respondents.

V. Acknowledgement

We are indebted to Okinawa Prefectural Educational Center and the participants of Special Needs Education for cooperation in this study. And this work was supported by JSPS KAKENHI Grant Number 26-4304.

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ORIGINAL ARTICLE

自動車教習所における知的障害者への教習実態 —千葉県および沖縄県の全指定教習所への質問紙調査より—

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<Key-words>

自動車教習所, 運転免許, 知的障害

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I. 問題と目的

知的障害者が運転免許を取得することには多くのメリットがある。まず移動範囲が広くなることで、通勤可能範囲が拡大し、余暇活動をより充実させることにつながる。保護者の高齢化に伴って子どもを同伴しての外出が困難(吉松, 1997)になり、移動に時間がかかることが保護者の負担となり余暇活動に影響(石黒ら, 1999)することを防いでくれる。これらのメリットは健常者にも共通することである。さらに就職の選択肢が広がることである。運転免許を取得するには学科試験と実技試験に合格しなければならないが、それだけである程度の仕事ができると見なされる(伊保・田中, 2008)。運転ができることで就職にも積極的な姿勢が生じ、自己責任の認識も強くなる(井上ら, 2004)。知的障害者や発達障害者など障害者にとって自動車運転免許証の取得は就労など社会生活を営む上で大きな力となると国会答弁でも取り上げられた(広中, 2004)。

2003年に道路交通法が改正されたことにより、これまでは一定の病気に罹っているものに対して一律に免許が取得できない(受験資格も無い)とされていた、絶対的欠格事由だったものが廃止され、免許を取得しようとする者が自動車等の安全な運転に支障があるかどうかを個別に判断する、相対的欠格事由となった。試験に合格しても一定の病気にかかっており自動車等の安全な運転に支障を来す恐れがある場合には、道路交通の安全の観点から免許が取得できない場合もあるとされている。試験に合格した者に対しては免許の拒否や保留が、免許を取得している者に対しては免許の取り消しや停止がなされる。てんかんなどがなければ、知的障害者というだけで拒否されることにはならない(警察庁, 2005; 2010)。

また「自動車教習所が心身障害者は一律に入校できないという方針をホームページ等で明示している例がみられるが、およそ心身障害者は運転免許を取得できないとの誤解を与え、平成13年改正法による運転免許の欠格事由の見直しの趣旨に反するものであり、望ましくないものとする」との記述もみられる。障害の種類や程度は個人により異

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なり、どのような支援を行えば自動車運転が可能になるのかの判断基準はほとんどわかっていない（鎌田ら, 2004）。

こうした知的障害者の自動車運転免許をめぐる諸問題については別にまとめているが（田中, 2012）、現状を明らかにするに十分な資料や実証的データが乏しいため、今回実態調査を実施することとした。将来的には全国調査が必要であるが、今回は調査協力の得られやすい沖縄県と、千葉県議会議員から実態調査の実施要望があった千葉県を対象地域として選んだ。本研究では、両県の自動車教習所の教官を対象に質問紙調査を行い、教官の知的障害者の運転免許取得に対する意識を調べることで教習所の現状を把握することを目的とする。

Ⅱ. 方法

1. 調査対象

道路交通法第 99 条によって公安委員会の指定を受けた自動車教習所のうち、社団法人全日本指定自動車教習所協会連合会に加盟する沖縄県指定自動車教習所全 21 校および千葉県指定自動車教習所全 58 校の指導課長とした。

2. 手続き

「知的障害者の運転免許取得に対する意識調査」とし、質問紙は 2010 年 10 月 29 日に各校へ郵送し配布し、同封の返信用封筒で返送するよう依頼した。

3. 回収率

質問紙を配布した沖縄県指定自動車教習所 21 校中 8 校、千葉県指定自動車教習所 58 校中 21 校から有効回答が得られた（回収率；沖縄県 38.1%、千葉県 36.2%）。

4. 調査項目

調査項目はフェイスシートと 20 項目の質問から成る（表 1）。

Ⅲ. 結果

1. フェイスシート

対象教習所 79 校のうち、有効回答が得られたのは沖縄県 8 校、千葉県 21 校であった。対象教習所の教員数 20 人未満の教習所が 42.9%、20 人以上 30 人未満の教習所が 32.1%、30 人以上の教習所が 25.0%であった。

回答者の年齢は、30 代 14.3%、40 代 42.9%、50 代 32.1%、60 代 10.7%であった。性別は全て男性であった。指導経験年数は、10 年未満 7.4%、10 年以上 20 年未満 18.5%、20 年以上 30 年未満 51.9%、30 年以上 22.2%であった。知的障害者への指導経験がある者は 42.3%、指導経験のない者は 57.7%であった。日常生活における知的障害者との接触機会を持つ者は 22.2%、接触する機会のない者は 77.8%であった。

表 1 調査項目

フェイスシート（年齢・性別・指導年数・知的障害者への指導経験など）

質問内容

- ①知的障害者であっても免許を取れることを知っていましたか。
- ②現在知的障害者が免許を取る際、技能教習において、知的障害者に対して十分な配慮がされていると思いますか。
- ③現在知的障害者が免許を取る際、学科教習において、知的障害者に対して十分な配慮がされていると思いますか。
- ④知的障害者の技能教習にどのような不安がありますか。
- ⑤知的障害者の学科教習にどのような不安がありますか。
- ⑥（知的障害者に指導した経験がある方）その教習生は免許を取得できましたか。
- ⑦通常の教習所で知的障害者を教えることは適切であると思いますか。
- ⑧知的障害者が免許を取る際どのような点が挫折のポイントになっていると思いますか。
- ⑨知的障害者が免許を取ることに對して不安はありますか。ある場合は、それはどのような不安ですか。
- ⑩教習所は卒業できても学科試験に何十回も合格できない知的障害者に、どのような支援が必要だと思いますか。
- ⑪知的障害者がより免許を取りやすくなるように、サポート等が必要だと思いますか。
- ⑫知的障害者が免許を取ろうとする場合、専門の知識を持った人のサポートが必要だと思いますか。
- ⑬それは具体的にどのようなサポートですか。
- ⑭現在知的障害者が免許を取るためのシステム（教習所や公安の連携等）は充実していると思いますか。
- ⑮地域の知的障害者の免許取得を支援するシステムを何かご存知ですか。
- ⑯特別支援学校等との連携（学校内での講習会等）は必要と感じますか。
- ⑰（必要だと思う場合）特別支援学校等との連携では、どのような支援が必要だと思いますか。
- ⑱（必要でないと思う場合）なぜ必要ないと思いますか。
- ⑲運転免許取得後のサポート等が必要だと思いますか。
- ⑳知的障害者の運転免許取得に対する意識（自由記述）

2. 質問項目の回答結果

(1) 知的障害者の運転免許取得に対する認知度

項目①「知的障害者であっても運転免許を取れることを知っていましたか。」に関して、「はい」と回答した教官が 96.6%と大多数を占めた。

(2) 知的障害者に対する技能教習への配慮

項目②「現在知的障害者が免許を取る際、技能教習において、知的障害者に対して十分な配慮がされていると思いますか。」については、「どちらともいえない」が 37.9%、「どちらかといえばそう思わない」が 34.5%であった。「全くそう思わない」は 20.7%、「どちらかといえばそう思う」は 6.9%で、「全くそう思う」はいなかった。

(3) 知的障害者に対する学科教習への配慮

項目③「現在知的障害者が運転免許を取る際、学科教習において、知的障害者に対して十分な配慮がされていると思いますか。」に関しては、「どちらかといえばそう思わない」が 44.8%で最も多かった。次いで、「全くそう思わない」 27.6%、「どちらともいえない」 17.2%、「どちらかといえばそう思う」 10.3%と続いた。

(4) 知的障害者の技能教習における不安

項目④「知的障害者の技能教習にどのような不安がありますか。」に関する回答結果を、「時間的・経済的負担に関する不安」、「障害に関する不安」、「運転操作に関する不安」に分類した（表 2）。なお、自由記述においてはできるだけ原文通りに表中に記載した（以下同様）。

表 2 知的障害者の技能教習における不安

<時間的・経済的負担に関する不安>

- ・傾向として MT 車を取得しようとする生徒さんで、かなりの時間を要する。当校ではなるべく AT 車を取得するよう推進している。
- ・教習時間を重ねる必要がある。
- ・最低限の技量まで取得出来るが、その技量に到達するまで時間（料金）がかかる。
- ・交通ルール等の理解度が若干遅いため、技能教習に時間がかかりすぎ。
- ・時間がかかる。
- ・理解してもらうのに個人差があると思いますが、時限数がかかなり多くかかる教習生がいるのではないかと。
- ・理解に時間が必要なため、教習時間が増えてしまう。教習期限が切れる心配がある。
- ・理解度、意思の疎通、限られた時限の中での教習効率。
- ・基本教習時限（MT 車 34 時限）の 2 倍以上かかり、経済的に負担が大きい。
- ・膨大な時間と費用がかかることも懸念されます。
- ・習得するまでに時間がかかることでの家族等への負担。

<障害に関する不安>

- ・長時間の運転に集中力がないので大変である（居眠りをする）。
- ・50 分間の教習時間に集中できるか。
- ・集中力がどれくらい保てるか。
- ・体力、集中力が続かない為、1 時限（50 分）の教習は何とか指示したことができる方もおりますが、2 時限連続となるとどうしても根気がなくなるため大変かと思ひます。現在の教習カリキュラムには 2 時限連続・3 時限連続という教習がありますが、体力・集中力等が持たないのではと思ひます。
- ・所内での教習には特に不安はないと思ひますが、路上教習や連続して行う高速教習等の際には、知的障害の程度や個別の行動傾向を事前に知っておく必要がある。
- ・パニックを起こしそう。
- ・コミュニケーションが上手くとれるか、意思の疎通が図れるか。
- ・円滑なコミュニケーション。
- ・対応の仕方（話し方、説明の仕方等）
- ・読み書き、計算等の学習面の困難さに加え判断力などの知能の面に困難がある方に画一的な教習手法では通用しないと思ひれる。
- ・教習カリキュラムが一般人向けに作成されているため、知的障害者においては、その何倍もの時間と労力が必要になってくること。更に技能における重要なポイントを理解してもらえていない点。
- ・指導する内容が十分に理解できるか不安。
- ・指導員の教習内容の説明が、どの程度理解できるか。
- ・説明の理解ができるか。
- ・こちらから言ったことがどの位理解してもらえるか。
- ・教習システム等の理解。

<運転操作に関する不安>

- ・基本的には、運転操作については、障害があっても問題ありませんが、法規走行においては、理解されることに不安があります。
- ・どんなに車を動かすことが苦手であっても根気を持って時間をかけ努力することで、出来るようにはなると思ひますが、なぜそうするのかと理解するまでに時間がかかること、又は最終的に理解できなかった場合ただ動かすことが出来ただけですと何かあった時に対処に困ると思ひます。
- ・技能技術の取得に関しては反復練習することにより可能だと思ひますが、実際の交通場面で状況判断が出来るかどうかについては、かなり不安があります。
- ・決められた動作（運転操作）を覚えることは出来ると思ひますが、判断が伴う動作（相手の動きを見て運転の方法を変える）ができるかが不安である。
- ・理解力、判断力、機敏性。
- ・運転操作に関して時間は一般の方よりは多少要すると思ひますが、慣れとそして動作の一貫性を繰り返し行えれば克服すると思ひます。危険を予測してのスピードコントロールは個人差が出てくると思ひます。

(5) 知的障害者の学科教習における不安

項目⑤「知的障害者の学科教習にどのような不安がありますか。」に関する回答結果を、「時間的・経済的負担に関する不安」、「障害に関する不安」、「集団学習に関する不安」、「その他」に分類した（表 3）。

表 3 知的障害者の学科教習における不安

<時間的・経済的負担に関する不安>

- ・理解に時間がかかり、学科試験に合格するのに時間がかかるため、教習期限が切れる心配がある。
- ・道路交通法（学科）の取得と維持。※ほとんどが学科試験において挫折する方が多い（期限を切らす）。
- ・道路交通法および学科の問題等の理解に時間がかかり、期限を切らす。
- ・限られた教習時間の学習で学科試験に合格することは困難であること。
- ・時間がかかる。

<障害に関する不安>

- ・語彙力が不足しているため、道路交通法の少々難解な言葉に苦労している。
- ・知的障害者の国語の読解力のレベルがどの程度か。
- ・読解力、理解力。
- ・文章が理解できない。
- ・言葉が解らない、知識不足や文章の読解力等、理解力が乏しいため、学科試験の合格が困難である。
- ・読み書き、計算等の学習面の困難さに加え判断力などの知能の面に困難がある方に画一的な教習手法では通用しないと思われる。
- ・時間と労力がとてもかかること。文章を読みとる能力が不足している場合、内容を理解できないのではないかなという不安があります。
- ・内容が理解してもらえるか。
- ・個人差があると思いますがまず文章の読解力、それから道路交通法の理解力（交通場面でのルールとマナー）。
- ・学科試験の不安。
- ・教習内容の理解度、テストの合格、一般とのペースの違い。
- ・学科については更に技能よりも集中力、思考力がなくなり、ついてこれなくなるのではと思います。
- ・大変、大きな不安を感じます。ただ、障害の程度がどの程度かで決まりますが、技能同様、いやそれ以上に画一的な教習では難しい問題があります。
- ・脳の発達障害など程度によって学科の内容を、どのくらい理解してもらえるか個人差がかなりあるのではないかな。
- ・パニックを起こしそう。
- ・集中力がどれくらい保てるのか。

<集団学習に関する不安>

- ・1対1での学科教習が必要である（皆と一緒にやっている）。
- ・学科教習は集団で教習を行うため、教習内容の理解度が把握できないこと。
- ・複数教習なので理解度が把握しづらい。
- ・集団学習である学科教習についてこられるか。
- ・集団教育の中での個人。
- ・健常者との合同学習。
- ・他の教習生との関わり。

<その他>

- ・（学科試験に合格するだけの）努力をすれば、学科試験に合格するとは思いますが、単に学科試験に合格しただけであり、内容を理解して実際の運転に生かせるかが問題である。
- ・教習に不安はありませんが、最終的に理解できなかった場合学科試験は公安委員会の行うものであり、それに合格しなければ免許証は交付されないのので一定レベルに達することが無理である時の判断は難しいです。
- ・身体能力に問題なければ、技能教習は時間がかかってもなんとかできると思うが、学科教習、特に学科試験に合格できるかどうか最終的には一番の不安材料である。
- ・効果測定等、テスト関係が不安。

(6) 指導した知的障害者の免許取得率

項目⑥「<知的障害者に指導した経験がある方>その教習生は免許を取ることができましたか。」について、「はい」と答えた教官が13名中9名で69.2%であった。

(7) 知的障害者を通常の教習所で教える適切性

項目⑦「通常の教習所で知的障害者を教えることは適切であると思いますか。」に関しては、「どちらかといえばそう思わない」が41.4%で最も多かった。次いで、「どちらともいえない」31.0%、「どちらかといえばそう思う」13.8%、「全くそう思わない」10.3%、「全くそう思う」3.4%であった。否定的な意見が51.7%と過半数を占めた。

(8) 知的障害者が免許を取得する際の挫折ポイント

項目⑧「知的障害者が免許を取得する際どのような点が挫折のポイントになっていると思いますか。」について、「(学科と運転技術) 両方」が 55.2%、「学科」44.8%と回答が分かれた。また 1 名は「両方」という回答に加え、「周囲の視線」という記載があった。

(9) 知的障害者が免許を取得することへの不安

項目⑨「知的障害者が免許を取得することに対して不安はありますか。ある場合、それはどのような不安ですか。」に関しては、「ある」が 89.3%と大半を占め、「ない」は 10.7%に過ぎなかった。「ある」という回答の中から具体的にどこが不安であるのかが記述された回答結果を「教習中に関する不安」と、「卒業後に関する不安」に分類した(表 4)。

表 4 知的障害者が免許を取得することへの不安

<教習中に関する不安>

- ・決められた教習期限内で卒業し、試験に合格できるのか、教習料金の負担等についても不安である。
- ・教習所としては、本人が諦めない限り個別学習等の支援は続けます。しかしながら、途中で退校してしまうような場合、返金等はあるものの金銭的な無駄が生じることが申し訳なく感じる。
- ・経済的に健常者の倍以上時間(料金)がかかる。
- ・どの位の費用、時間が必要なのか、どういう設備が必要なのか。
- ・学科の理解度。
- ・指導方法。
- ・ないが、どのように教育を行ったらよいかかわからない。
- ・学科の理解度、教習時限数の増加、仮免学科試験の合格など、どの程度で修了できるか予測ができない(途中で教習を諦めてしまう人も出てくるのではないか)。
- ・路上教習中に、他の車両や建物、通行人に興味が行ってしまい、自分の運転に集中できないことが多くあった。自動車は、危険な乗り物という認識がされにくいと考えられる。学科においても 2 択でのテストには強いが、根本となる理由や状況判断における対応ができなくなることが多い。

<卒業後に関する不安>

- ・教習において基本操作を行い路上にて応用走行を終え、免許を取得しますが、教習で体験できない状況で対応することが出来るのだろうかと思う。
- ・場合によっては自分または周りの方の命に関わる事態が生ずる時、その場面を回避できる判断力。
- ・複雑な交通場面に差し掛かった時、一人で判断して対応できるか心配。
- ・運転に持続した安定感等がなくなり、現在の複雑な交通や速度等に対する対応ができないのでは。
- ・運転は、認知、判断、操作であるから、判断、操作が追いつくか不安。
- ・判断力がどの程度あるか。
- ・将来一人で運転して大丈夫か？
- ・免許取得後、単独で運転した時に刻一刻と変化する交通場面に対応できるかどうか？
- ・実際一人で運転して多々変化する交通環境に対応できているか？
- ・道路状況や交通状況に応じた判断が出来るか。予測する運転ができるか。
- ・トラブル等に遭遇した際落ち着いて対応できているか？
- ・交通ルール、マナーを忘却していないか？など不安です。
- ・周囲の変化等に対応しづらく事故の危険が多い。
- ・交通事故など。
- ・交通事故を起こさないか？不安はかなり大きいと思います。
- ・不安＝危ないという意味ではなく、もし事故などを起こした時の対処が出来るかどうかです。相手が悪い人であった時。
- ・取得後の事故。特に加害者になった場合。
- ・免許取得後、事故を起こさない運転ができるか？(免許取得後 1 年間の交通事故に関しては教習所の責任である)。
- ・免許取得の後、交通社会では障害者と一般運転者の区別は無い。
- ・免許取得後の運転。
- ・本人及び他の交通に対する安全。
- ・取る時もそうだが取った後も不安。
- ・何かがあった時、パニック状態にならないか。

(10) 学科試験に合格できない知的障害者へ必要な支援

項目⑩「教習所は卒業できても学科試験に何十回も合格できない知的障害者に、どのような支援が必要だと思いますか。」に関する回答結果を、「教習所としての支援」、「学校・公安等関係機関の支援」、「その他」に分類した（表5）。

表5 学科試験に合格できない知的障害者へ必要な支援

<教習所としての支援>

- ・入校前に本人のやる気を確認したり親御さんの理解を得られることが大切です。その上で教習所では、その人を受け入れたのならマンツーマンで授業を行い免許取得までサポートすべきである。
- ・卒業しても免許を取得できないということは大金を使って何の結果も得られないことになる。金銭的なことを考えるならば、入校前に何らかの判断が必要ではないかと思う。もちろん卒業後であっても学科試験に合格しない場合には個別学習等の支援は行っている。
- ・個人授業が必要。※「技能教習」は1対1の形式で指導を行うので、それなりに達成することができ、指導員も対象者の理解度や習得状況が分かりやすいが、逆に「学科教習」は指導員一人に対し複数の生徒を対象とするので、対象者の理解度や習得状況がどの程度のものが分かりづらい。
- ・根気よくマンツーマンで指導すること。
- ・長期における個人指導。
- ・指導員または付添者等と個別に問題等の解説や対策等を計画して行うことが必要だと思います。
- ・個別指導。
- ・教習所が卒業できたということは、仮免許学科試験には合格しているわけですから、無理なことではありません。一番は家族の協力だと思いますが、当教習所では卒業後も勉強の為だけにくる生徒もいます。
- ・卒業教習所での合格までのフォロー体制。
- ・卒業してからでも学科等の勉強を指導するような支援。
- ・卒業後も指導が必要だと思う。
- ・教習所において、学科の再受講をしてもらってはどうか？
- ・とても難しいと思われませんが、2択のテストを合格させるためにテキストを何回も学習すれば、問題に慣れてくると考えられます。基本としては、法令や基本が理解されないと、実際の運転で様々な支障があるかと思います。

<学校・公安等関係機関の支援>

- ・知的障害者の専門学校にて早めの交通教育。
- ・基礎的な学業。
- ・経済支援。
- ・教習所卒業後に本試験（各運転免許センター、試験場）で合格できない人が、再度勉強できる場所を作ってもらいたい。
- ・現在の学科試験の問題数95問では多すぎると、文章解説も、それなりに難しいと感じます。故に教習所の教習だけでは無理があり、関係機関の協力も無ければと思います。
- ・道交法の解説以前の問題として、教習に必要な単語、動詞など小学生レベルから教育できるサポートが必要。
- ・その為の専門機関が必要だと思います。
- ・知的障害者に対する知識及び現行の教習所システムに対する知識を持った人のサポート。
- ・補充的な学科ができるような講習会等の開催等。

<その他>

- ・現状の学科問題自体が問題なので・・・難しい。
- ・分からない。
- ・免許取得を諦めるべきだと思う。

(11) 知的障害者が免許を取得するためのサポートの必要性

項目⑪「知的障害者がより免許を取りやすくなるように、サポート等が必要だと思いますか。」に関して、「全くそう思う」が35.7%、「どちらともいえない」が32.1%、「どちらかといえばそう思う」が25.0%であった。否定的回答である「全くそう思わない」、「どちらかといえばそう思わない」と答えた教官はそれぞれ3.6%と少なかった。

(12) 専門知識を持つ人間のサポートの必要性

項目⑫「知的障害者が免許を取ろうとする場合、専門の知識を持った人のサポートが必要だと思いますか。」については、「全くそう思う」が58.6%と過半数を占めた。「どちらともいえない」24.1%、「どちらかといえばそう思う」17.2%であった。否定的回答である「全くそ

う思わない」、「どちらかといえばそう思わない」と答えた教官はいなかった。

(13) 具体的に必要なサポート内容

項目⑬「＜⑫で4, 5を選んだ方＞具体的にどのようなサポートが必要だと思いますか。」の回答結果を、「教習生へのサポート」、「教官へのサポート」、「その他」に分類した（表6）。

表6 具体的に必要なサポート内容

<p>＜教習生へのサポート＞</p> <ul style="list-style-type: none"> ・特定の人を選んで指導していくべきではないでしょうか。 ・1対1での教習が必要だと思うが、なかなか難しいと思います。 ・個人レッスンが出来る体制。 ・受験できる期限内で学科試験に合格できるまでの学力を向上させる専門技術のあるサポーターが必要。 ・その専門知識を持った人 ・技能、学科専属の担当指導員をつけて、時間をかけたきめ細かな授業を行う。 ・技能→各手順および操作の連立をその場の状況に応じて正確に行えるよう繰り返し確実に習得させることが必要。 ・学科→技能教習も大切ですが、学科教習はそれ以上に時間をかけて一つ一つ丁寧に教え込むことが必要です。 ・学習補助。 ・本人と信頼関係を持った人の参加。 ・一般の方でさえ初めて自動車に触ったり、運転に抵抗があるので、自動車に慣れること、自動車の怖さ、責任などある程度理解したうえで教習所に通うなど、技能・学科についても、十分に学習する機会を与えることが必要。
<p>＜教官へのサポート＞</p> <ul style="list-style-type: none"> ・障害者に対する対応方法（接し方、コミュニケーションの取り方等）。 ・知的障害者に対する接遇は、とても重要で、それに伴う教育（指導）知識を有しなければならないと思う。 ・専門の知識を持った人と指導員とのあらゆる講習会等。 ・教習所職員へのセミナーがあったらよいと思う。あったとしても小規模の教習所ではどこにお願いをしたらよいかわからない。 ・知的障害者個々人の内容を理解した人に、アドバイスをしてもらいたい。他者とのトラブル防止、時限数増、料金等も考えたいので。 ・免許を取ろうとしている人の状態を理解できる人が教習所にいるといいと思う。 ・カリキュラムの作成、専用の教本を作成等。 ・教習所の職員のサポートではなく、ほかに関係機関のサポートを行ってくださる方の学科・技能教習、検定等の知識が必要かと思っています。他に知的障害についてよく理解している方が本人に聞けないことも聞くことができる。 ・知的障害者に対する知識及び現行の教習所システムに対する知識。
<p>＜その他＞</p> <ul style="list-style-type: none"> ・国、または県からの経済援助が必要です。 ・障害を持つ方々の社会生活技能を高めるための専門的な教育と訓練を受けられる機会と設備が必要と思われる。 ・思うが、経験がないので具体的なサポートの方法がわからない。 ・手話のできる方。

(14) 知的障害者が免許を取得するためのシステムの充実度

項目⑭「現在知的障害者が免許を取得するためのシステム（教習所や公安の連携等）は充実していると思いますか。」に関する回答結果を集計し、円グラフで表したものである。その結果、「全くそう思わない」と答えた教官が29名中12名と全体の41.4%であった。次いで、「どちらかといえばそう思わない」と答えた教官が多く、9名で全体の31.0%であった。そして、「どちらともいえない」と答えた教官は29名中8名で全体の27.6%であった。「全くそう思う」、「どちらかといえばそう思う」と答えた教官はいずれも0名であった。

(15) 知的障害者の免許取得を支援するシステム

項目⑮「地域の知的障害者の免許取得を支援するシステムを何かご存知ですか。またそれはどのようなシステムですか。」に関して、全員が「いいえ」と答えた。

(16) 特別支援学校との連携の必要性

項目⑩「特別支援学校などとの連携（学校内での講習会等）は必要と感じますか。」について、「はい」が82.8%と大半を占めた。そのうち、項目⑪「特別支援学校などとの連携では、どのような支援が必要だと思いますか。すでに連携を取っている場合は、どのように行っていますか。」に関する回答結果を、「障害の理解への支援」、「学科教習への支援」、「その他」に分類してまとめた（表7）。

表7 特別支援学校などとの連携で必要な支援

<障害の理解への支援>

- ・障害の程度には個人差があると思うので、本人の性格や能力、学校での生活等についての情報。
- ・指導員が支援学校等に出向し、障害者の特性等を理解できるようともに学習。
- ・個々の性格や特徴等を知らせてもらうこと。
- ・知的障害の内容、程度をよく知らせてほしいと思います。
- ・本人の行動分析等。
- ・受け入れる方としても、それくらいの等級レベルか知っておく必要があると感じるため。

<学科教習への支援>

- ・免許に興味のある生徒さんにはなるべく早く学科の勉強をスタートさせる方がいいと思います。従って月に1回でも授業の一環として学科教習を取り入れた方がいいのではないのでしょうか。
- ・当方として、当然のことながら学科試験対策として指導員がサポートして学習しましたが基礎的学力が乏しく効果が得られなかった。外部からの専門的なサポートが必要です。
- ・サポーターをつけてもらう。
- ・学習のサポート。
- ・学科教習内容について理解されていない時の指導などをしてもらいたい（仮免学科試験を受からなくて挫折するケースが多い）。
- ・学科教習等が一人では実施できないと思うので、何人かの協力者が必要になると思う。

<その他>

- ・免許取得以前に、講習として身近なことを少しずつ認識、理解させていくことは必要だと思う。また、他の自動車学校ではそういう連携をして実施しているそうです。
- ・自動車運転技能習得費の貸付（障害者更生資金）、自動車運転免許取得助成事業等の斡旋。
- ・まず、特別支援学校の推薦を行うなど、その知的障害者がどのような人物で、学習することに対して問題があるかどうかは協力していただければいいと思います。差別をするわけではありませんが、誰もが運転免許を取得出来る訳ではなく、一般の人も何人も挫折しているのが現状です。
- ・特別支援学校内で、知的障害者が免許を取得出来るのか、出来ないのかの選別（知的障害の程度）。
- ・特別支援学校の先生方も同席の上、面談を行い、本人のレベルにあった交通ルールの勉強会など。
- ・自動車の運転は生命に関わる問題ですので小学校から道路交通法についてもっと具体的に学習をさせた方が良いでしょう。
- ・教習所に入所を希望している生徒に対する事前の基礎知識の教育をしていただけると助かります。
- ・体験学習。
- ・入所する前に教習所では、どのようなことをするのか、どのような勉強をするのか、説明があるといいのではないかと思います。
- ・交通安全講習等が必要だと思います。
- ・特別支援学校の先生に講義をしてもらいたい。
- ・歩行者としての安全教育。

(17) 特別支援学校との連携が不要な理由

項目⑬「〈⑩で2. いいえと答えた方〉なぜ必要ないと思いますか。」に関する回答結果を少数意見ではあるが紹介した（表8）。

表8 特別支援学校との連携が不要な理由

- ・必要ないとは全く思いませんが、本人が全く話さないと集中力があまりないと、50分の教習がとてもきびしいと思います。本校にいる女生徒は、学科のテストは一般の人と全く変わりません。
- ・特別支援学校にいる人全員が免許を必要だと思っているかわからない。
- ・各教習所との取り組み、対応等申し合わせの必要。
- ・よくわからないので。

(18) 運転免許取得後のサポートの必要性

項目⑭「運転免許取得後のサポート等が必要だと思いますか。必要な場合は、どのようなサポートが必要だと思いますか。」に関して、「はい」が 88.5%と大半であった。また、「はい」という回答の中から具体的にどのようなサポートが必要であるのかが記述された回答結果を「人的な支援」、「講習会等による支援」、「その他」に分類した（表 9）。

表 9 運転免許取得後に必要なサポート

<人的な支援>

- ・身近な、コミュニケーションが上手くいく方の付添。
- ・取得後、一定期間運転に家族等の同乗指導。
- ・事故をしてしまった場合、その後の事故対応等、一般的な知識と判断が必要なので、家族や周りの人のサポートが重要となります。
- ・知的障害者が免許取得後、1～2年くらいの間、助手席にサポーターが同乗して、色々なケースに対して操作面、判断面でアドバイスが必要。
- ・運転免許取得だけが目的ではなく、知的障害者のみではなく、全ての方が免許取得後に、正しい知識、運転操作を確認し、常に初心を忘れさせないようなサポートが必要。
- ・教習所で行っている教習だけでは限りがあるため、取得後においては支援団体による、より実践的な運転についての個人的なサポートの必要があるのではと思います。

<講習会等による支援>

- ・定期的に公的機関（警察署、交通課等）による安全講習等。
- ・6カ月に一回は簡易な講習を実施する。
- ・免許取得後の様子はどうかなどの連絡や講習等の勉強会などがあるといいと思う。
- ・定期的な講習等が必要だと思います。
- ・違反、事故等がないか定期的に確認し相談などを行う。
- ・定期的な確認。
- ・事故等トラブルの時の対処方法。

<その他>

- ・運転について要望があれば対応すべきだと思います。
- ・必要だとは思いますが、その内容までは思いつかない。
- ・わからない。
- ・取得後の運転危険者の排除。
- ・全ての面において。
- ・路上等の練習。
- ・公的機関にて。

IV. 考察**(1) 自動車教習所への支援の必要性**

教習所の教官の 96.6%は知的障害者であっても運転免許を取得できることを知っており、2003 年の道路交通法改正についてはかなり認識されていた。しかし教官の多くは支援制度が充実することを条件に知的障害者の運転免許取得を賛成と考えていることが示唆された。技能講習における不安の回答結果から、教習所では知的障害者が教習を受ける際健常者の倍以上教習時間や料金がかかることを危惧していた。自治体規模での運転免許取得費支援事業も重要であるが、国や県としても経済的援助が根本的には必要であろう。また警察庁（2005）が教習所への周知徹底を呼び掛けているのにも関わらず「当校の現状では受け入れ不可」という返答もあり、人的支援も追いついていないと推察される。

特別支援学校においては、学科教習に関する学習ボランティア等を積極的に導入し、卒業後も関係機関等と連携してできるだけフォローを続けることで、知的障害者の学科教習の補助や教習所教官の負担軽減に繋がるのではないだろうか。通常の教習所で知的障害者を教えることに対しては否定的な意見が 51.7%と過半数を占めていたことから、教習所に対する何

らかの専門的人的支援が必要不可欠である。相対的欠格事由（田中, 2012）にあてはまらない知的障害者が運転免許を取得する権利を認めている以上、国はそれを保障するための対策を講じる義務があろう。何ら対策をとらないまま、自動車教習所に責任を負わせることがあってはならない。

(2) 入校時のコンサルテーション

支援制度が整備されたという前提で、自動車教習所へ入校した後も継続してケース会議を開き、誰が担当になっても困惑することが無いよう教官の間で知的障害者に関する情報を共有することが求められるであろう。そして知的障害者を指導できる教官がいることや個別指導や卒業後のフォロー体制が可能であること、自動車運転免許取得費支援事業などをパンフレットやホームページ等で積極的に広報していくことで、知的障害者が免許を取得するための情報収集が容易になり、入校を諦めていた知的障害者が教習所に通うことが不可能ではないと知ることができるだろう。

また取得後の交通事故に関する不安がむしろ大きいので、障害者の交通事故に関する統計を国は一刻も早く取り始め、実態を明らかにするべきである。高齢者は安全運転の心構えあるいは危険感受性が極端に低下するが、逆に気をつかう傾向がある（森, 1987）。また交通事故に関する統計には、事故の当事者が障害者であるかどうかの分類がない場合が多い（徳田, 2002）。明確なエビデンスに基づいた知的障害者の事故リスクを分析したうえで、自動車保険の在り方を検討しなければ、国民に理解を得ることは困難であろう。

(3) 卒業後のフォロー体制

免許証を取得するためには教習所を卒業した後に学科試験をパスする必要がある。知的障害者に限らず学科試験は最大の難関である。せっかく教習所を卒業しても学科試験に合格できず免許取得を諦めてしまう人は数多くいるだろう。調査結果から、卒業後のフォロー体制が必要だという回答があった。実際に、卒業後に合格できない人に対して個別指導を行っている教習所もある。しかし「教習所卒業後に合格できない人が勉強できるような設備を作ってもらいたい」という意見もあり、卒業後のフォロー体制は各教習所の裁量に委ねられているのが現状だと推察される。教習所によってフォロー体制に差が出ることがないように、卒業後も教習所で学科の再受講が出来るような制度を統一して確立していく必要があるのではないだろうか。

(4) 公的助成制度の広報と普及

今回の調査で地域の支援事業があることを教習所が全く把握していないという結果が明らかになった。地方自治体が行っているものとして、免許取得費用の一部を自治体が負担するなどの支援を受けられる「自動車運転免許取得費助成事業」という事業があるが、自治体によって効果的な広報が行われていない（伊保・田中, 2008）ことが原因の一つである。しかし、自治体の中にはホームページ上で「自動車運転免許取得費支援事業」を明示しているところも見られ、教習所の中にも運転免許センターの適性相談窓口の紹介と併せて「自動車運転免許取得費支援事業」を紹介しているところが見つかった。

また、教習所への専門的なサポートとして「教習所職員へのセミナーがあったらよいと思

う。」としながらも「どこにお願いをしたらよいか分からない。」という回答があり、自治体は支援事業と併せて講習会等の紹介も、ホームページやパンフレット、毎月の地域の広報誌に記載して積極的に周知を図っていく必要がある。また、教習所側・知的障害者本人側からも支援事業等の情報収集をしていくことが重要である。

教習所が、知的障害者を指導できる教官がいることや個別指導や卒業後のフォロー体制が可能であること、自動車運転免許取得費支援事業などをパンフレットやホームページ等で積極的に広報していくことで、知的障害者が免許を取得するための情報収集が容易になり、入校を諦めていた知的障害者が、教習所に通うことが不可能ではないと知ることができるだろう。

(5) 特別支援学校との連携

特別支援学校との連携を必要だと考えている教官が多いことも明らかになった。少数だが「必要としない」という回答もあったが、全く必要ないと感じているわけではなく「各教習所同士の申し合わせ等の情報共有が必要だ」という回答や、「特別支援学校の生徒全員が免許を必要としているわけではない」と考えていることが明らかになった。

特別支援学校の中には、高等部に入学した時点で、免許取得の意思があるか保護者にアンケートを取る学校もある。免許取得の意思がある生徒がいた場合に、校内でケース会議を行うなど免許取得の支援の実態を明らかにする必要がある。また近隣に特別支援学校があるが「意外と閉鎖的でありほとんど地域と交流がない」という回答もみられ、かなり学校間格差が激しいと思われる。

特別支援学校は地域のセンター的機能を担っており、免許取得支援の面でもその機能が期待される現状も実際にはある。連携の必要性を感じている教官の多くは、入校する知的障害者の障害の特性を把握しておきたいと感じていることが明らかとなったが、これは個人情報の管理の問題から困難が多い。そこで予め保護者の了解が得られていれば、取得後の支援につながるであろうし、保護者の協力が得られれば、取得後の一定期間同乗してもらう等の支援により事故等の不安の軽減になるのではないだろうか。取得後の不安が少しでも軽減されれば知的障害者の免許取得の増加につながるであろう。

(6) 地域連携の必要性

今回の質問紙調査で教習における配慮の不足や、教習所や知的障害者本人、公安等関係諸機関、地域等の連携が十分でないということが明らかになった。教習所での個人指導や教官の共通理解などの体制を整え、保護者等の理解・協力を得て、国や県からの経済支援制度等の整備をすることで、より多くの知的障害者が運転免許を取得し、取得後も安全に運転することができるようになるだろう。そのために専用の教本の開発や、学科試験までの具体的な支援、保険制度や経済援助を含めた法整備、より密に教習所と知的障害者本人、保護者、関連諸機関、地域の連携を取るための具体的な方法と支援ネットワークの構築に向けて検討していくことが今後の課題である。

付記

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ORIGINAL ARTICLE

Identification of Actual States of Training for people with Intellectual Disabilities in Driving School: From Questionnaire Survey on Specific Driving School in Chiba and Okinawa

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ABSTRACT

In this research was investigated that trainers' attitude toward people with intellectual disabilities during driving license exam, through questionnaire survey on 79 specific driving school in Chiba and Okinawa. As a result, it is clarified that there is a lack of consideration for training and no cooperation between people with intellectual disabilities and trainers. Therefore, putting systems for understanding of each other, getting support by family and making up economical support systems from government are all needed in order to people with intellectual disabilities getting license and make it better for safe driving after obtention. Consequently, next problems are to develop special textbook, to support for examination, to analyze risk of car accidents, to put insurance systems and laws of economical help and to investigate of best way to cooperate with everyone around people with intellectual disabilities to rise the chance to obtain the license.

<Key-words>

Driving school, driving license, intellectual disabilities

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ORIGINAL ARTICLE

企業の社会的責任(Corporate Social Responsibility: CSR)に関する理論分析と考察 —経済学的な観点から—

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CSR, 企業利益の最大化, 経済理論, 投資理論

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I. 問題と目的

1. 研究背景

資本主義社会の中で企業の活動範囲は極めて広く、経済分野だけではなく、社会、環境など多様な分野に広がっている。企業の活動範囲が多様化されると共に、社会に与える影響力も大きくなり、世界的に企業の社会的責任(Corporate Social Responsibility: CSR, 以下CSR)が注目されている。

企業のCSRに対する概念や定義は学者または研究分野において様々であるが、国際機構である欧州委員会(European Commission: EC)によると、CSRとは「責任ある行動が持続可能なビジネスの成功につながるという認識を企業が持ち、社会や環境に関する問題意識を、その事業活動やステークホルダーとの関係の中に、自主的に取り入れていくための概念¹⁾」であるとしている。また、World Bankでは、CSRとは、ステークホルダーとの協力を通して倫理的に行動し、持続可能な経済発展に貢献するための企業活動²⁾であると言及している。

以上のECやWorld Bankから言及しているCSRの概念に基づいてみると、CSRは「持続可能な発展のために、企業が社会や環境問題へ自発的に取り組む倫理的な行動である」と定義付けられる。つまり、CSRは持続的な発展のために行うべき社会倫理的な行動という意味を持っているといえる。そのため、NPOやNGO、環境団体などの多様な組織からCSRが強調さ

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¹⁾ A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis (European Commission, 2002).

²⁾ CSR is the commitment of businesses to behave ethically and to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life, in ways that are both good for business and good for international development (World Bank, 2004).

れるようになった。しかしながら、CSRは企業から利益を生み出すために行う支出行動の1つであるため、経済的な行動として認識する必要がある。

日本と韓国においてCSRに関する先行研究は、CSRに関する世界的な動向や現状分析やCSRに影響を与える要因を分析した研究が一般的であり、経済学的な観点からなぜCSRに取り組んでいるかについて理論的に分析した研究は少ない。すなわち、CSRは慈善活動または寄付活動ではなく、企業経営のための支出行動であるため、CSR支出による経済効果を分析する意義があるにも関わらず、CSR支出と企業利益の関係について分析した研究は相対的に少ないといえる。

そこで、本研究の意義は、経済学的な観点から企業利益の最大化とCSRについて理論的に説明した上、CSRを促進させるための今後の政策的課題を提案することにある。

2. 研究目的

本研究では、企業利益の最大化に基づいて企業ではなぜCSRに取り組んでおり、CSR支出はどのように決定されるかについて理論的に明らかにする。その結果に基づいて今後、企業のCSRを促進させるための政策的な課題について考察する。

II. 方法

本研究では、最初に最新統計資料を用いて企業のCSR支出における現状とCSRに対する企業経営者の認識について現状分析を行う。また、企業利益の最大化に基づいて企業ではなぜCSRに取り組むのかを理論的に分析した代表的な学者であるPeter Navarro(1998)とAbigail McWilliams & Donald Siegel(2001)の先行研究を用いて、CSRと企業利益の最大化について検討する。

III. 企業のCSRにおける現状分析－韓国を中心に－

日本では2000年代に入り、CSRという概念が急速に浸透し、企業のCSRの取り組みは大きく進展している。経団連の2009年調査「CSRに関するアンケート調査結果」によれば、会員企業の約7割がCSRの取り組みの体制・制度を整え、9割が取組の内容を情報開示している(経済報告センター, 2013)。

また、韓国においても2000年代からCSRが促進され、企業のCSRへの参加が持続的に増加し、企業の売上高に対するCSR支出の比率は2010年0.22%とアメリカ(0.11%)や日本(0.08%)などの先進国に比べて2倍ほど高くなっている(全国経済人連合会, 2013)。

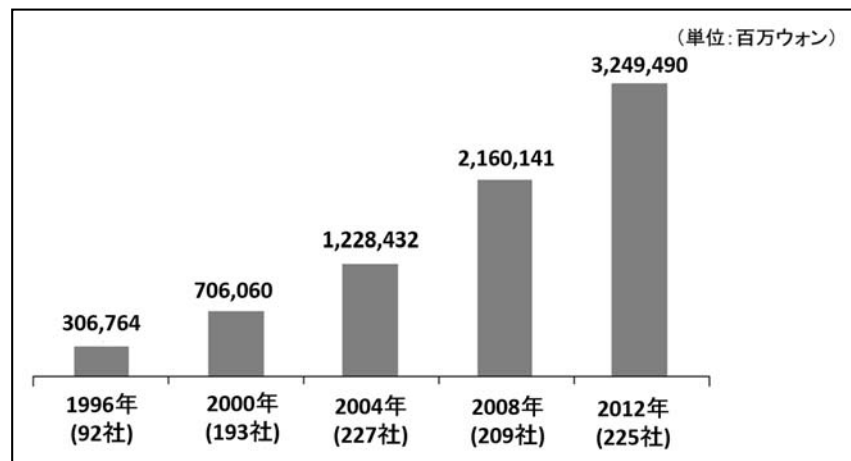
以上のような背景に基づいて、ここでは、CSRに関する歴史は浅いものの、他の先進国に比べてCSR支出比率が高くなっている韓国のCSR支出規模や支出分野など、CSR支出現状について分析する。また、韓国の企業経営者はCSRについてどのように考えているかについて検討する。

1. CSR に関する支出及び規模

1) CSR 支出推移

韓国の企業における CSR 支出推移をみると、1990 年代から CSR 支出規模が持続的に増加する傾向がみられる。具体的には、＜図-1＞で示しているように、1990 年代の CSR 支出費は 1 兆ウォン未満であったが、2000 年代に入って 1 兆ウォンに達しており、2012 年の CSR 支出規模は 1990 年に比べて 10 倍ほど大きくなったことが分かる。また、CSR 動向調査である「Corporate Community Relations White Book」に積極的に答えた企業の数も、1990 年代には 92 社にすぎなかったが、持続的に増加し 2012 年には 255 社と約 3 倍ほど増加していることが分かる。

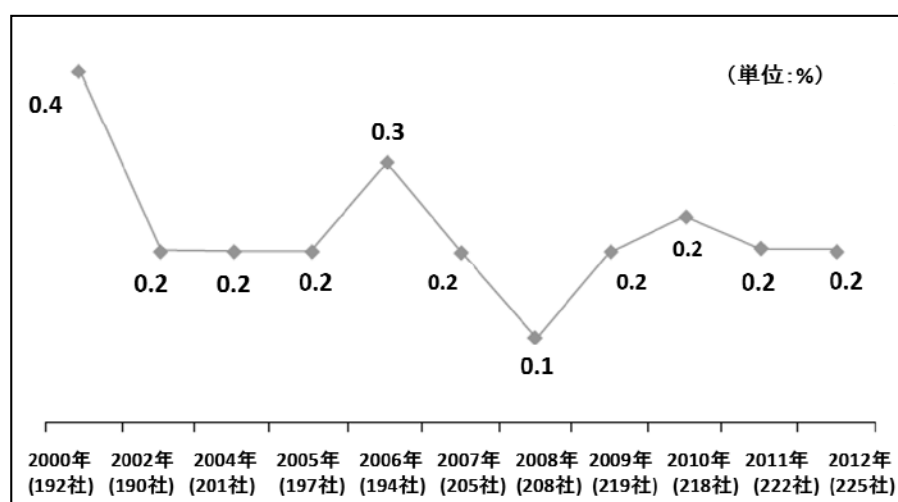
特に、韓国では、2000 年度から大企業を中心に CSR を実施するための人的システムや管理システムなどを備える企業が増加したため、CSR 支出規模も大幅増加したと考えられる。



出典：全国経済人連合会(2013) Corporate Community Relations White Book 2013

図 1 企業の CSR 支出規模(年度別)

また、売上高に対する CSR 支出費用の平均比率を年度別みると、2006 年から 2008 年までは減少し続けてきたものの、2012 年には 0.22% となり、アメリカ(0.11%)や日本(0.8%)などの先進国に比べても高い水準に回復していることが分かる(図 2 参照)。＜図 2＞からも分かるように、2008 年の CSR 支出比率が最も減少しているが、これは 2008 年から始まった経済危機の影響を受けているといえる。さらに、44.4%の企業が売上高の 0.05%~0.1%水準で CSR 費用を支出していることが分かる(表 1 参照)。



出典：全国経済人連合会(2013) Corporate Community Relations White Book 2013

図2 売上高に対する CSR 支出の割合(韓国)

表1 2012年度売上高に対する CSR 支出比率

(単位：社(%))

売上高に対する CSR 支出比率	1%以上	0.5~1%	0.1~0.5 %	0.05~0.1 %	0.02~0.05 %	0.02%未満
企業数 (比率)	31 (13.8%)	27 (12.0%)	35 (15.6%)	100 (44.4%)	15 (6.7%)	17 (7.6%)

出典：全国経済人連合会(2013) Corporate Community Relations White Book 2013

以上、韓国の企業における CSR 支出規模の現状を分析した結果、2012 年には世界経済危機により、国内の景気が厳しく、国内企業間の競争も激しくなっていたにもかかわらず、CSR に対する支出規模は前年度に比べて縮小されていないことが分かる。このことから、韓国の企業では長期的かつ持続的な計画の下で CSR 活動に取り組んでいるといえる(図1、図2参照)。

2) 分野別 CSR 支出現状

全国経済人連合会の「企業 CSR 実態調査 2013」によると、CSR 支出が最も高かったのは社会福祉分野であり、教育・学術研究、文化・芸術の順で高くなっている。各分野別における CSR 支出現況は<表2>のようである。

社会福祉分野に対し CSR 支出が最も多くなっていることから、韓国の企業では CSR として高齢者や障害者、女性、児童のような社会的弱者に対する福祉的支援に最も焦点をあてているといえる。

また、「その他」の分野における CSR 支出比率が 25.7%と大きな割合を占めていることから、企業に対する社会的なニーズが多様化かつ複雑化されることに応じて、CSR 活動の分野も幅広くなっているといえる。

表 2 2012 年分野別における CSR 支出比率(韓国)

(単位: %)

分野	全体比率 ¹⁾	寄付金型 ²⁾	事業型 ³⁾
社会福祉	31.7	45.7	17.0
教育・学校・学術研究	16.1	21.5	18.2
文化・芸術及び体育	11.1	11.8	12.3
医療保健	5.7	0.6	30.9
農村支援	3.9	5.1	8.9
海外支援	2.9	1.1	0.3
環境関連支援	2.4	2.3	5.9
災害支援	0.6	0.4	0.1
その他	25.7	11.5	6.3

注 1) 対象企業：203 社／支出費用：2 兆 9,962 億ウォン

2) 対象企業：134 社／支出費用：1 兆 3,190 億ウォン

3) 対象企業：134 社／支出費用：4,339 億ウォン

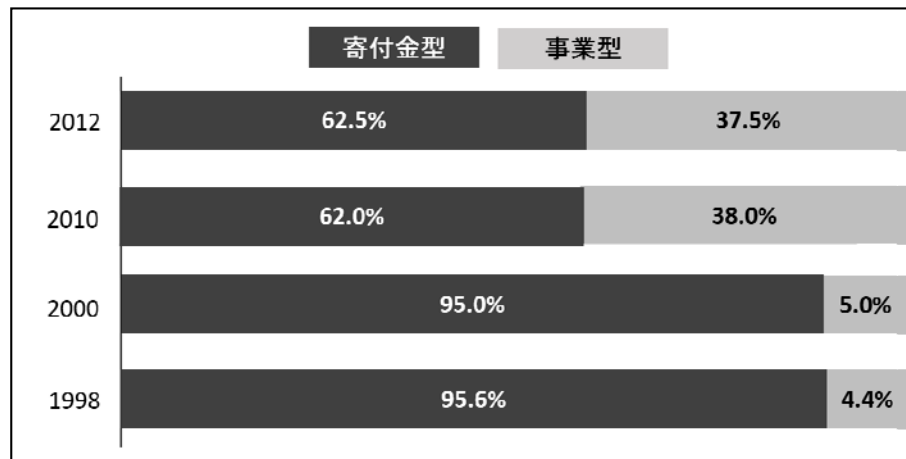
出典：全国経済人連合会(2013) Corporate Community Relations White Book 2013

2. CSR に対する経営者の認識と CSR 支出形態

CSR に対する企業経営者の認識は大きく 2 つに分けられる。1 つは、CSR を企業利益の最大化に反するものとして認識するストックホルダーの観点 (Stockholder theory, Shareholder theory) であり、もう 1 つは、CSR は企業に関わるすべての社会環境を発展させる活動であるため、結果的に企業の発展にもつながるというステイクホルダーの観点 (Stakeholder theory) である。

Hyon(2014)によれば、CSR に対する韓国の大企業経営者の認識は、ストックホルダーの観点からステイクホルダーの観点に変化している。これは、企業に関わる多様な利害関係者 (Stakeholder) を積極的に考慮する企業が増加しているともいえる。

一方、企業の CSR 支出形態からみると、CSR 費用の半分以上の 62.5% が寄付金型として支出されており、37.5% のみ事業型として支出されている。このような寄付金型と事業型の割合を年度別に示したものが<図 3>である。



注：1998年には147社、2000年には193社、2010年には187社、2012年には188社を対象として結果である。

出典：全国経済人連合会(2013) Corporate Community Relations White Book 2013

図3 CSR支出形態別における現状

すなわち、CSRに対する企業経営者の認識は、より積極的に多くの利害関係者を考慮するように変化しているものの、実際のCSR活動においては事業型より消極的な寄付金型として取り組んでいるといえる。

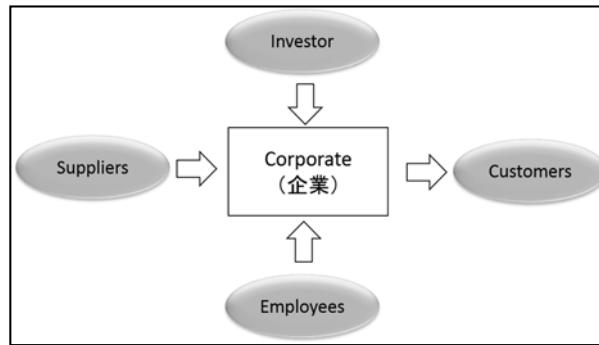
ただし、企業の役割が大きくなると共に、企業に対し社会的なニーズとも高まり、2010年からは直接事業型として取り組む企業が大幅に増えていることから、2000年代に比べて企業の人的・物的資源を活用して積極的にCSRへ取り組む企業が増加していると考えられる(図3参照)。

IV. 経済学的な理論からみた企業のCSR

企業のCSRに関する理論は、学者あるいは学問によって様々であるが、ここでは、「ストックホルダー理論(Stockholder theory, Shareholder theory)」と「ステイクホルダー理論(Stakeholder theory)」という相対立する理論を用いて企業のCSR活動の経済的な側面を検討する。

1. ストックホルダー理論(Stockholder theory, shareholder theory)

ストックホルダー理論で経営者は株主利益の最大化、すなわち利益の最大化を企業経営の目的とする(中谷, 1998)。Donaldson & Preston(1995)は、ストックホルダー理論による企業と企業に関わるステイクホルダーの関係を<図4>のように示している。



出典: Donaldson and Preston(1995)を参照して筆者作成

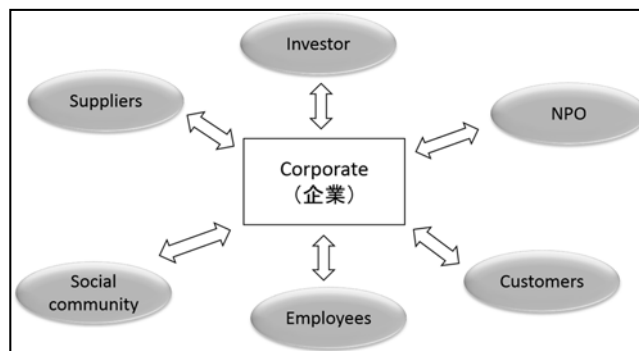
図4 ストックホルダー理論に基づく企業とステイクホルダーの関係図

＜図4＞で示しているように、ストックホルダー理論で企業は、株主の代理人として利益を最大化することに焦点を当てている。

ストックホルダー理論の代表的な論者としてMilton Friedman(1970)は、企業のCSRについて「ビジネスの社会的責任とは、その利潤を増やすことである(The social responsibility of business is to increase its profits)」と論じながら、自由主義社会において、ビジネスの社会的責任は、資産を運用して利益を増やすことを意図した活動に従事することであり、企業利益を追求することによって、結果的に最大多数の幸福が達成されるとしている。また、社会問題に取り込む活動は企業の役割ではなく、政府の役割であるとしている。すなわち、Friedmanによると、企業のCSRとは経済的責任のみを意味し、企業利益を追求することによって結果的に最大多数の幸福が達成されるといえる。そのため、CSR活動は、企業利益につながらない慈善活動または社会貢献活動ではなく、企業利益を増やすための戦略的な活動の一つとして取り扱う概念として理解できる。このようなストックホルダー理論は、近年の戦略的CSRや企業利益に基づいたCSR活動の基本概念となっている。

2. ステイクホルダー理論(Stakeholder theory)

ステイクホルダー理論は、ストックホルダー理論に対立し、R. Edward Freeman(1984) の中で提唱されたことに始まる。Freeman(1984) によると、ステイクホルダーとは株主以外に責任を持つグループであり、企業はステイクホルダーと＜図5＞のような関係があると示している。



出典: Freeman(1984) を参照して筆者作成

図5 ステイクホルダー理論に基づく企業とステイクホルダーの関係図

<図5>でも分かるように、企業は多様な分野におけるステイクホルダーと関連しているため、企業は株主の利益のみならず、企業利益に影響を与える多様なステイクホルダーに配慮することによって、結果的に企業利益を生み出すことができるという理論である。また、このステイクホルダーをマネジメントすることがCSRの中心要素であるとしている(Clarkson, 1995)。ステイクホルダー理論に基づいて多様なステイクホルダーへの配慮と企業利益について研究したDonaldson & Preston(1995)は、企業がマルチステイクホルダーと「相互依存関係」を作り出さなければ、継続的な利潤追求はできないとしている。また、Clarkson (1995)は、「それぞれのステイクホルダーが当該企業と関わりを持ち続けられるような、利潤や価値の分配を企業が行うことで、企業は利潤を継続的に増大できる」と論じている。さらに、Hillman & Keim (2001)によれば、多様なステイクホルダーを効果的にマネジメントすることによって、無形で社会的な資産が形成され、長期的にみて、競合他社より優れる事ができる。すなわち、ステイクホルダー理論に基づいてみると、企業では株主のみならず、企業に関わる様々な分野のステイクホルダーを効果的にマネジメントしなければ、企業利潤を継続的に蓄積することができないため、CSRを行うべきである。また、経済的な側面からCSR活動そのものの企業利益ではなく、CSRを通して多様なステイクホルダーをマネジメントする経営的な側面に焦点を当てているところが、ストックホルダー理論とは相違しているといえる。

以上、CSRに対する2つの理論を検討した結果、CSR活動の範囲や対象は若干異なっているが、最終的な目標は企業利益の最大化であることが分かる。また、ストックホルダー理論でCSRは、経済的な責任の意味が強く、社会的な責任(CSR)を完全否定しているようにみえるが、利潤追求によって、最大多数の幸福が達成されるため、結果的にはCSRに繋がると解釈できる。

V. 利潤最大化企業モデルからみた企業の CSR

ここでは、Peter Navarro(1988)の企業利益の最大化理論モデル(Theoretical Model of Profit Maximization)と McWilliams & Siegel(2001)による投資理論モデルを用いて企業のCSR行動を理論的に分析する。

1. Peter Navarro による CSR 支出と企業利益の最大化

Navarro(1988)は、ストックホルダー理論に基づいてなぜ企業ではCSR支出をするのかについて明らかにするため、企業利益の最大化モデルと経営効用の最大化モデルの2つの理論モデルを用いて説明している。ここでは、企業利益の最大化モデルによるCSR支出について説明する。

Navarro(1988)は、利益の最大化に基づいて需要(Demand)の側面、費用(Cost)の側面、税金(Tax)の側面から企業のCSR支出を説明している。

1) 需要(Demand)の側面

利益の最大化を目標とする企業では、製品に対する広告や宣伝などによって企業利益が増加すると広告や宣伝に対する費用を増加させる。企業の CSR 支出費用も広告や宣伝のように、企業利益を生み出すための一つの方法であるとするれば、CSR 支出費用とも増加させると予測できる。そこで、CSR 支出費用を含む企業利益(π)は、式(1)のように表される。ここで、 Q は生産量、 C は生産量に対する費用、 P は生産品の価格、 G は CSR 支出費用とする。

$$\pi = PQ(P, G) - C(Q(P, G)) - G \quad (1)$$

つまり、企業では利益最大化のための、生産量(Q)と CSR 支出費用(G)を決定する。利益の最大化のために、生産量(Q)と CSR 支出費用(G)に対して微分すると、

$$P + Q \cdot \frac{\partial P}{\partial Q} = \frac{\partial C}{\partial Q} \quad (2)$$

$$P \frac{\partial Q}{\partial G} = \frac{\partial C}{\partial Q} \cdot \frac{\partial Q}{\partial G} + 1 \quad (3)$$

になる。式(2)は、生産量(Q)を決定するための限界条件を示す。また、式(3)の $P \frac{\partial Q}{\partial G}$ は CSR 支出費用(G)による限界収入(Marginal revenue)を示す。また、 $\frac{\partial C}{\partial Q} \cdot \frac{\partial Q}{\partial G} + 1$ は CSR 支出費用(G)の限界費用(Marginal cost)を示しており、企業の CSR 支出費用(G)は、限界収入と限界費用が一致されるレベルで決定される。

ここで、Dorfman-Steiner(1954)による最適広告費の定理(Advertising Rule)に基づいて CSR 支出費用を広告費用に準ずるものとするれば、企業の CSR 支出費用(G)は CSR 支出の需要弾力性(η_G)と価格に対する需要弾力性(η_P)によって決定される。

$$\frac{G}{S} = \frac{\eta_G}{\eta_P} \quad (4)$$

すなわち、CSR 支出費用に対する需要弾力性が大きくなると CSR 支出費用も増加し、CSR 支出によって価格に対する需要弾力性が高くなると、CSR 支出費用は減少することが分かる。

2) 費用(Cost)の側面

費用(Cost)の側面からみると、企業における CSR 支出費用の増加は、労働者に対する人件費や営業にかかる費用、政府支出などを収めることができる。例えば、CSR 費用を労働者に対する教育や福祉などに支出することによってより良い労働環境を整備すると、低賃金でも働く労働者が増加し、長期的には労働者に対する人件費を軽減することができる。また、労働者福祉に対する政府支出を軽減することもできるといえる。さらに、研究関連の機関に対

する CSR 支出は、新製品や新技術を開発するための間接的な投資費用となり、長期的にみて CSR 支出は企業の利益増加につながる。

つまり、費用(C)には生産に対する費用(Q(P,G))だけではなく、労働者福祉に対する投資や新技術開発に対する投資などの環境に対する投資費用(E)が含まれる。これを式(5)のように示す。

$$C = C[Q(P,G); E], \quad \partial C / \partial E < 0 \quad (5)$$

また、環境に対する投資費用(E)は、各企業による CSR 支出費用(G)と他企業や個人による資金(F)、そして税金による資金(V)によって決定されるため、

$$E = E(G,F,V) \quad (6)$$

のように表される。式(6)を、式(1)の企業の利益追求モデルに代入すると、

$$\pi = PQ(P, G) - C[Q(P, G); E(G,F,V)] - G \quad (7)$$

になる。すなわち、企業では CSR 支出費用によって他の支出費用を軽減させ、長期的に企業利益を最大化するために CSR を選択するといえる。

3) 税金(Tax)の側面

企業利益(π)は、式(1)のように生産量(Q)や費用(C)、価格(P)、CSR 支出費用(G)だけではなく、税金を含めて説明することができる。式(1)に税金(t)を加えると、

$$\pi = (1-t) [PQ(P, G) - C[Q(P, G), G] - G] \quad (8)$$

と表される。ここで、利益の最大化に基づいて生産量(Q)と CSR 支出費用(G)に対して微分すると、税金は CSR 支出費用に影響を与えていないことが分かる($\partial G / \partial t = 0$)。

2. 投資理論モデルと企業の CSR

McWilliams & Siegel(2001)は、投資理論モデルに基づいて企業の CSR 支出について理論的に分析している。McWilliams らによれば、企業では CSR を通して①環境にやさしい商品のような CSR という特徴を直接的に表す商品を生産し、あるいは②生産プロセスのなかで CSR に関する費用を支出することによって、自社の独創性のある商品の生産が可能になると論じている。すなわち、CSR 支出によって企業では独創性の高い商品 (product differentiation) を生み出すことができるため、企業利益を最大化するための戦略的な投資であるとしている。

CSR 支出を商品価値を高めるための特性と考えれば、ヘドニック価格モデル(Hedonic Price Model)によって CSR 支出と商品価値を説明することができる。ヘドニック価格モデルは商品の潜在的価値を推定する方法であり、商品価値は商品が持つ各種の特性を統合した

ものであると仮定している。つまり、CSR 支出による商品価格(P_i)は、商品の物理的な特性(M)と商品のデザイン特性(D)、CSR 支出とともに増加する。これを、

$$P_i = f(M, D, \text{CSR 支出}) \quad (9)$$

と表される。また、商品特性(M)と商品のデザイン特性(D)、CSR を商品価格(P_i)に影響を与える独立変数として線形回帰式を求めると、

$$P_i = \beta_0 + \beta_1 (M)_i + \beta_2 (D)_i + \beta_3 (\text{CSR 支出})_i + \varepsilon \quad (10)$$

になる。ここで、 β_0 、 β_1 、 β_2 、 β_3 は各独立変数である商品特性、商品のデザイン特性、CSR の係数を意味し、これを時間(t)に対して微分すると、

$$\frac{\partial \beta_1}{\partial t} < 0, \quad \frac{\partial \beta_2}{\partial t} > 0, \quad \frac{\partial \beta_3}{\partial t} > 0, \quad \frac{\partial^2 \beta_2}{\partial t^2} < \frac{\partial^2 \beta_3}{\partial t^2} \quad (11)$$

と表される。すなわち、商品の物理的な特性に対する価値 β_1 は、時間的な変化によって小さくなる一方、商品のデザインに対する価値 β_2 や CSR 支出に対する価値 β_3 は大きくなるため、長期的な利益の最大化のために企業では商品のデザインや CSR 支出に集中することになる。

VI. 考察

CSRは企業の支出項目の1つであるため、企業利益の最大化に基づいて考えるべきである。しかしながら、日本と韓国では企業のCSRに関する研究は多くなされているものの、CSRと企業利益の関係について理論的に分析した研究が相対的に少なく、ステイクホルダー理論に基づいて、企業利潤を継続的に蓄積するためにはCSRを行うべきであると結論づけた研究が多くなされている。

そこで、本研究では経済学的な視点から企業の CSR と企業利益の関係について理論的に分析した国内外の先行研究を検討しながら、企業利益の最大化のための CSR について理論的に検討した。

また、CSR と企業利益の最大化について理論的に分析する以前に、CSR に関する歴史は浅いものの、2012年の企業の売上高に対する CSR 支出比率がアメリカ(0.11%)や日本(0.08%)などの先進国に比べて2倍ほど高くなっている韓国(0.22%)のCSR支出現状について検討した。同時に、企業経営者はCSRについてどのように考えているかについて検討した。

その結果に基づいてみると、2012年の韓国の企業における CSR 支出規模は、1990年度から持続的に増加しており、売上高に対する CSR 支出規模も 0.2%と他の先進国に比べて高くなっている。特に、2012年には世界経済危機により、国内の景気が厳しく、企業間の競争も激しくなっていたにもかかわらず、前年度と比べて CSR に対する支出規模は縮小されていないことから、韓国の企業では長期的かつ持続的な計画の下で CSR 活動に取り組んでいるといえ

る。また、分野別における CSR 支出現状をみると、社会福祉分野に対し CSR 支出の割合が多くなっていることから、韓国の企業では CSR として高齢者や障害者、女性、児童のような社会的弱者に対し福祉的支援に焦点を当てていると考えられる。

一方、CSR に対する韓国の大企業経営者の認識は、ストックホルダーの観点(Stockholder theory, Shareholder theory)からステイクホルダーの観点(Stakeholder theory)に変化しているものの、CSR 支出費用の 62.5%が寄付金型として支出されていることが分かった。これは、CSR に対する認識は積極的に変化しているが、実際の CSR 支出形態においては消極的な姿勢を見せ続けている現状を示している。このような現状から、今後には、自社が持つ人的・物的資源を活用して積極的に CSR 事業へ取組むようなシステムを整備していく必要があると考えられる。

次に、企業利益の最大化理論モデル(Theoretical Model of Profit Maximization)に基づいて CSR 支出を理論的に分析した Navarro(1988)の研究から、企業では、生産量を増やすためにかかるコストを軽減させ、長期的に企業利益を最大化するために CSR 支出を選択し、CSR 支出費用は、限界収入と限界費用が一致されるレベルで自発的に決定されるものであると考えられる。

さらに、投資理論モデルを用いて企業の CSR 行動を理論分析した McWilliams & Siegel(2001)の研究から、企業では CSR 支出によって独創性のある商品(product differentiation)を生み出し、企業利益を最大化するため戦略的に CSR へ取り組んでいると説明できる。また、ヘドニック価格モデルに基づいて、CSR を商品が持つ各種の特性の一部と仮定すれば、CSR 支出が多くなると共に商品価値も増加すると説明できる。商品が持つ物理的な特性は、時間的な変化によって小さくなるため、企業では商品のデザインや潜在的な特性に集中することになる。すなわち、企業では、短期的な利益だけではなく、投資的な観点から長期的な企業利益の最大化のために、戦略的かつ自発的に CSR 支出を選択すると考えられる。

以上のような理論分析から、CSR 支出は、単なる社会への貢献や慈善活動ではなく、企業利益の最大化のための自発的な投資及び戦略的な企業経営活動であるため、制度的な措置によって企業の CSR 参加を促進させるよりも、企業の自発性に注目する必要があるといえる。

従って、今後、企業の自発的な CSR 支出に促進させるために、企業に対しては CSR 支出を投資として認識させるような情報提供または教育が持続的に行われる必要がある。また、企業評価の一部として、CSR 支出による多様な成果を測定すれば、企業の自発的な CSR 支出は促進されることが考えられる。一方、消費者に対しては、CSR によるサービスや商品を選択させるために、CSR の重要性和 CSR によるサービスや商品の信頼性を持続的に広告・宣伝していく必要がある。

最後に、本研究の限界ともいえるが、今後、研究分野においては企業に対し CSR 支出データを用いて実証分析を行い、理論モデルを検証していく研究または、CSR 支出に影響を与える要因を分析する研究を進めていくことによって、企業の自発的な CSR 支出を導くための具体的な政策的な提案ができると考えられる。

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ORIGINAL ARTICLE

The Theoretical analysis and consideration on the Corporate Social Responsibility(CSR): Focus on Economic perspective

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ABSTRACT

CSR is a part of the expenditure element of Corporation, so it should be considered based on the profit maximization. However, Economic theoretical analysis or relationship research between profit and CSR, much less studies in Japan and Korea.

Therefore, in this paper, using previous studies on Economic theoretical analysis, I analyzed for the relationship between profit and CSR

As a result, it could explain why do spending CSR. At first, based on the Theoretical Model of profit maximization, Corporations to select the CSR spending in order to increase the long-term profit. Also, expense of the CSR is defined by the level of the same for marginal cost and marginal revenue spontaneously. In addition, based on the Theoretical Model of Investment, because of the CSR is the one of the characteristics with a product, Corporate investment for CSR strategically.

Thus, to promote the CSR, it is important in improving awareness of CSR from charity to investment. So, I suggest that the information offering or evaluation system about the CSR has to be instituted for the Corporations. And then, it is important that the continue to strengthen not only importance and reliability of CSR product for the consumer. Lastly, it is required to the Empirical analysis or Factor analyses using CSR data.

<Key-words>

CSR, Profit Maximization, Economic Theories, Investment Theories

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ORIGINAL ARTICLE

An aim of the disaster prevention for safety live of the elderly requiring the long term careKeiko KITAGAWA¹⁾

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ABSTRACT

The intensive-care homes for the elderly and health services facilities for the aged that accommodate many elderly people who are vulnerable to disasters and needs care and assistance during the period of emergency evacuation need to be prepared for the damages of disasters.

This study aimed to analyze the effects of the experiences of employees whose facility was suffered from damages from disasters on the preparation for disaster prevention by investigating the consciousness of disaster prevention and mitigation for the employees of nursing care insurance facilities.

The results of this study showed that the employees of facilities who experienced the damages from disasters presented the strong anxiety to them and those experiences were reflected in the preparation for evacuation and disasters prevention. 10% of facilities had the experiences from the damages from disasters. The safety degree of facilities were relatively high, but the majority of facilities did not provide the explanation about the emergency evacuation in disaster situations.

<Key-words>

Disaster prevention, nursing care insurance facilities, elderly persons requiring long-term care

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I . Introduction

The consciousness of disaster prevention and mitigation of the employees in charge of disaster prevention of nursing care insurance facilities for the safe life of their residents in disaster situations was investigated in Japan. The degree of safety of the facilities and the consciousness of disaster prevention and mitigation of employees were also explored, because employees of nursing facilities need to be prepared for disaster prevention and mitigation to prevent and minimize the damage of elderly persons requiring long-term care in nursing facilities.

The intensive-care homes for the elderly and health services facilities for the aged that accommodate many elderly people who are vulnerable to disasters and needs care and assistance during the period of emergency evacuation need to be prepared for the damages of disasters. For the preparation for the disaster situations, the conditions of the elderly also need to be identified whether the elderly can evacuate by themselves or not, or they can even perceive disaster situations or not. Therefore, the preparation of the measures for disaster prevention for the facilities to accommodate the elderly is critical to protect the elderly who are disaster-vulnerable and prevent them from getting damaged from disasters.

The preparation for disaster situation differs from the conditions of the elderly, e.g., according to whether the elderly live independently or in nursing care insurance facilities; the persons in charge of protecting the elderly at home are their family, but the persons in charge of them in nursing care insurance facilities are employees. This study researched the supports of the residents of community when the facilities that accommodate the elderly who need care get damaged from disasters in Saga Prefecture. Nursing facilities are not only the places to provide the elderly with services, but also the home for the elderly requiring nursing care to live. They also play important roles to provide the accommodation for people requiring care in disaster situations and help them return to their life after disasters go by. Therefore, nursing facilities have to be thoroughly prepared for the safe evacuation, because they have to evacuate and to provide the elderly with care at the same time.

This study aimed to analyze the effects of the experiences of employees whose facility was suffered from damages from disasters on the preparation for disaster prevention by investigating the consciousness of disaster prevention and mitigation for the employees of nursing care insurance facilities.

The results of this study showed that the employees of facilities who experienced the damages from disasters presented the strong anxiety to them and those experiences were reflected in the preparation for evacuation and disasters prevention. 10% of facilities had the experiences from the damages from disasters. The safety degree of facilities were relatively high, but the majority of facilities did not provide the explanation about the emergency evacuation in disaster situations.

II. The Subjects and Methods of Study

1. The Effects of the Experiences of Damages from Disaster in the Past on the Consciousness of Disaster Prevention

Nationwide survey was conducted for 7,680 facilities including the long-term care welfare facilities for the elderly and health services facilities for the aged that were affiliated with the Japan Council of Senior Citizen Welfare Service and the Japan Association of Geriatric Health Service Facilities via the questionnaire that was named as the Nationwide Survey on the Disaster Prevention and Mitigation of Intensive-Care Old People's Homes, Health Services Facilities for the Aged and Low-cost Social Welfare Facilities for the Aged. Because the contents of questionnaire were about the damages from disasters and disaster prevention of facilities, the directors or employees in charge of preventing fire and disaster were asked to answer the questionnaire. The contents of questionnaire were as follows: one item about the experiences of damages from disasters (six sub-items in one table), six items about the consciousness of disaster prevention, two items about firefighting and disaster prevention drill, 12 items about the countermeasures against disaster and the coping methods in disaster situations, 12 items about wind and flood damages, 12 items about emergency evacuation and support for evacuees and six items about disaster mitigation. The survey had been conducted from October, 2007 to February, 2008 by being sent and collecting questionnaires by mail; the responded questionnaires were analyzed.

III. Results of the Survey

The response rate of the survey was 27.9%(See Table 1); among them, the response rate of intensive-care old people's home was 64.4%, which was the biggest one, and that of health services facility for the aged was 33.7%(about 1/3).

<Table 1> The Response Rates by the Types of Facilities

Types of Facilities	(n=2139)	
	Frequency	%
Intensive-care old people's home	1,378	64.4
Health services facility for the aged	720	33.7
Low-cost social welfare facilities for the aged	-	-
<u>Joint establishment</u>		
(intensive-care old people's home	32	1.5
+ low-cost social welfare facilities for the aged)		
No response	9	0.4

1. The General Conditions and Structure of Facilities and the Building's Age

The structure of facilities of the responded facilities to the questionnaires are shown in Table 2. For emergency evacuation, the information on the structure of facilities is important, because, when the facility is inundated, escaping to the top of building may decrease the difficulty in evacuation and minimize the damages and it is easier to return back to where people belonged to within a short-term.

<Table 2> The Structure of Facilities

(*n*=2139)

Structure of Building	Frequency	%
Wooden building	9	0.4
Two-storey or higher wooden building	3	0.1
Steel frame	71	3.3
Two-storey or higher steel frame	184	8.6
Ferroconcrete	424	19.8
Two-storey or higher ferroconcrete	1380	64.5
No response	68	3.2

The facilities with the two-storey or higher building account for 64.5%(about two third). New earthquake resistance standards were introduced due to the amendment of Building Standard Law and enforcement ordinance in June, 1981 and the same law and enforcement ordinance were amended again in June, 2000. In the process of the amendment of laws, the structure of ferroconcrete was legalized and many buildings have been mended.

Depending on the types of natural disasters, the geographical environment and location of facilities may significantly affect the scale of damages; for example, when flood occurs, the emergency evacuation can be made to the top of the building in the facility with two-storey or higher building; and the facilities in flatland may have difficulty in secure the safe place within facility depending on the depth and duration of inundation.

According to the survey on the emergency evacuation when flood damage occurs, most of residents answered that they prefer to evacuate to the closer and higher building from where they are rather than do to the place far from where they are; the emergency shelters where they are safe from inundation need to be installed in the places that are located near the residential areas or densely populated areas¹⁰). Nursing care facilities that are relatively higher buildings can be used as the shelters for people requiring care services while inundation occurs.

2. The Experiences of Damages from Disasters

According to the Disaster Management White Paper(2009 Cabinet Office, Government of Japan), due to the changes of climate caused by global warming, natural disasters has occurred more frequently and the frequency of large scale of flood damages have increased because of the growth of precipitation. The countermeasures against disasters have been focused on how to mitigate the damages from natural disasters by improving the ability to deal with disasters as well as how to overcome the vulnerability from natural disasters 11).

Due to the natural environmental conditions such as geographical and geological features and weather conditions, Japan is the natural disaster prone area including typhoon, heavy rain, heavy snow, flood, sediment disaster, earthquake, storm surge, tsunami, volcano eruption, etc. For the past 15 years except the Hokkaido Nansei Oki Earthquake in 1993 and Hanshin Awaji Earthquake disaster in 1995, wind and flood damages including sediment disaster and the damages from heavy snow have occupied the high percentage of the damages and casualties caused by natural disasters. The amount of the damages from natural disasters exceeded 1.0% of GNP in 1965 when the year was in the period of the high-degree economic growth. After that, as the GNP has greatly increased, the amounts of the damages from natural disasters were 0.08% of GNP in 1994 and 0.1% of GNP in 2006. The amount of the damages from natural disasters in 2006 was 641.7 billion Yen and therein lies 10 billion Yen, which is the amount that the welfare facilities got damaged.12). In this survey, 10.2% of facilities answered that they got damaged from natural disasters and among them, wind and flood damages held 70% of damages, which shows the fact that facilities are relatively safe places. However, given the percentage of the facilities that have the experiences of damages from natural disasters was 10.2% and the response rate was only 30% of entire facilities, it is difficult to conclude that the rate of the facilities that have the experiences of damages from natural disasters is low(Table 3).

<Table 3> The Experiences of the Damages from Disasters

	frequency	(n=2139) %
Have experiences	218	10.2
Have no experiences	1565	73.2
No response	356	16.6

50.5% of damages was caused by wind from typhoon, 37.2% by earthquake and 17.9% by flood; i.e., Hokkaido Nansei Oki Earthquake in 1993, Hanshin Awaji Earthquake disaster in 1995, the eruption of Miyakejima volcano at Mt. Usuzn in 2000, Niigata Prefecture Chuetsu Earthquake and heavy rains due to the occurrence of the largest number of typhoons in weather observation history in 2004, heavy snow between 2005

and 2006, Noto Hanto Earthquake, Niigata Prefecture Chuetsu Earthquake and huge typhoons in 2007(See Table 4).

<Table 4> The Types of the Damages from Natural Disasters

(*n*=218)

Types of the Damages	Frequency	%
Flood damages from heavy rain	39	17.9
Wind damages from typhoons	110	50.5
Earthquake	81	37.2
Fire	4	1.8
Others	35	16.1

※Note: Multiple answers were allowed.

In this study, the damages of natural disasters according to the administrative districts where the facilities were located in, even though the damages of natural disasters differ from the types and scales, time, regions(locations) of disasters and geographical features. The region with the highest rate of damages to facilities(37.5%) was Kumamoto Prefecture and of which the damages were caused by flood; the ranked second region(37.3%) was Niigata Prefecture by earthquake; and the third one(31.3%) was Saga Prefecture by flood. Beside, wind damages frequently occurred in the western areas of Japan such as Kyushu, Shikoku and Kansai and earthquakes occurred in the eastern area such as Chuetsu, Hanshin and Hokuriku. In recent, the large scale of earthquake occurred in the Kyushu in the northern area of Japan. In total, 218 facilities(10.2%) of 2,139 responded facilities to the survey answered that they have the experienced of the damages by wind and flood damages, earthquake, etc.

3. The Degree of the Concerns about Disaster Prevention: the Types of Natural Disasters that the Facilities are concerned about

According to the Survey on the Damages from Flood and Sediment Disasters(2005 Cabinet Office, Government of Japan) 13), among people who experienced the natural disasters, they answered that they mostly felt afraid of typhoon(29.1%), earthquake(23.1%), heavy rain(11.3%) and the overflow of the river(11.2%), which increased from the results in 1999 of typhoon(25.3%), earthquake(18.3%) and heavy rain(9.2%); the percentage of people answered that they did not feel afraid of damages or risks was 47.7%(Multiple response was allowed.).

In this study, natural disasters were divided into six kinds; six score was given to the first ranked natural disaster and one score to the sixth ranked natural disaster.

The ranks of the disasters that the facilities are concerned about are shown in Table 6 and there were significant differences among disasters. The averages of each disaster were as follows; 2.20 of inundation by flood, 1.97 of sediment disaster by flood, 0.89 by

storm surge and tsunami, 2.61 of wind damages, 4.70 of earthquake and 4.60 of fire.

Natural disasters may be recognized differently according to the geographical features and the state of their damages; therefore, the results of this survey may show the tendency of the facilities toward the kinds of natural disasters, even though they cannot show which natural disasters the facilities are concerned about conclusively.

It was surveyed whether the experiences of the damages from disasters affected the preparation for the disaster prevention and mitigation by dividing the facilities into two groups with or without the experiences of the damages from disasters.

As to the inundation by flood, 5.6% of the respondents selected the inundation as the first place that made them concerned about. There was a small difference between the groups with the experiences of the inundation(11.9%) or without them(7.1%) and the total percentages of the respondents selected the inundation as the first to third places was 66%(Multiple response was allowed), which showed the relatively low degree of the concern about the inundation. The regions that respondents answered that they are concerned about the damages of inundation included Tokushima and Aichi Prefectures(See Table 5).

As to the sediment disaster, 4.0% of the respondents selected the sediment disaster as the first place that made them concerned about and the total percentages of the respondents selected the sediment disaster as the first to third places was 33.3%(Multiple response was allowed), which showed that they are relatively optimistic about it. The degree of the concerns about the inundation was not high (See Table 5).

Even though only 3.1% of the respondents selected the storm surge and tsunami as the first place, the percentage greatly differs from the geographical features and regions of the place that the facilities that the respondents belonged to were located in. Most of the facilities didn't show the concern about them much, but only the respondents in Kochi Prefecture showed the above-the-average degree of the concern about them(See Table 5). However, storm surge and tsunami had occurred only twice for the last two decades, but caused great damages; the storm surge by typhoon no.18 in Yatsushiro Sea caused 12 casualties in September, 1999 and typhoon no.16 in the Inland Sea killed two people in August, 2004.

As to the damage from wind, 13.9% of the respondents selected the damage from wind as the first place that made them concerned about. In the total percentages of the respondents selected the damage from wind as the first to third places, the percentage of the group with the experiences of the damages from disasters was 66.2% and that without the experiences was 50.3%(Multiple response was allowed)(See Table 5). The degree of the concerns about wind damages from typhoon was higher than that of the concerns about flood damage and sediment damages(See Table 5). The regions of which the concern about wind damages is high are concentrated in the western Japan including Kumamoto and Kagoshima Prefectures.

As to the earthquake, 44.2% of the respondents selected the earthquake as the first

place that made them concerned about and the total percentages of the respondents selected the earthquake as the first to third places was 91.3%(See Table 5). The degree of the concerns about earthquake was highest among the disasters; it may be because great earthquakes successively caused serious damages and the facilities have accommodated many elderly people requiring care services. The degree of the concern about earthquake of the facilities was likely to be high in the whole country. Among the 11 prefectures where showed the high degree of the concern about earthquake, Ishikawa Prefecture was ranked the first, Kochi Prefecture the second and Miyagi Prefecture the third. The results lead to presume that the damages from earthquake in the past affected the high degree of the concern about earthquake now.

Fire can be divided into the secondary fire that is caused by natural disasters and the primary fire by human error. This study was conducted without dividing two kinds of fire. As to fire, 33.0% of the respondents selected the damage from fire as the first place that made them concerned about. In the total percentages of the respondents selected the damage from wind as the first to third places, the percentage of the group with the experiences of the damages from disasters was 88.0% and that without the experiences was 95.1%(Multiple response was allowed), which were almost similar with the figures of earthquake. However, the percentage(33.0%) of the respondents who selected fire as the first place was lower than that of earthquake(44.2%)(See Table 5). Among the prefectures that showed the high degree of the concern about fire, Yamagata Prefecture was ranked the first, Tottori Prefecture the second and Tochigi Prefecture the third; other 6 prefectures including Akita, Ibaraki and Tokushima Prefectures showed the same degrees.

In summary, among the disasters that the respondents were most concerned about, the damages from earthquake was ranked the first, fire the second, wind the third and flood damages fourth. Even though the degree of risk and the types of damages of natural disasters may differ from the location of facilities and the geographical features of the region, the degree of the concern about earthquake was highest in every prefecture. Even in the region with frequent damages from flood and almost without damages from earthquake, the degree of the concern about earthquake was likely to be high. The result about Saga Prefecture, where earthquake has not occurred, showed similar situation¹⁴⁾; even though 40% of facilities experienced the damages from flood and damages from flood and wind occurred frequently in Saga Prefecture, the disasters that the facilities worried about most were earthquake and fire. Even though the damage from wind was designated as the disaster of extreme severity and the large scale of inundation occurred by heavy rain in 2008 and 2009 in Saga Prefecture, all the facilities were most concerned about the fire and earthquake.

Considering the experiences of the flood damages, however, the concern about flood damages was not so high. Even after having experienced flood damages, the safety countermeasures against flood damages have not been prepared sufficiently¹⁴⁾.

Therefore, the placement of the facilities in Saga Prefecture should be made with the caution against the damages from disasters. The degree of the risk of natural disasters differs from the regions and the consciousness of disaster prevention is not enough to conceive those situation.

As to the degree of the concerns about the natural disasters by the kinds of disasters that caused damages in the past, there was the high degree of the correlation between the experiences of the damages from disasters and the degree of the concern about them. According to the results of the research on the evacuation of residents in community10), when residents were not concerned about flood damages, they didn't respond to flood damages at all and vice versa; when residents were concerned about flood damages, they responded to them very well. When the employees of facilities are more concerned about disaster prevention, they may be more prepared for it and make the residents of their facilities better-prepared.

<Table 5> The Disasters that the Facilities Feel Afraid of the Damages from Disasters by Whether to Have the Experiences of the Damages from Disasters

Rank	Flood Damage (Inundation)		Flood Damage (Sediment)		Storm Surge-Tsunami		Wind Damage		Earthquake		Fire	
	(n=159)	(n=1102)	(n=150)	(n=1078)	(n=127)	(n=911)	(n=180)	(n=1199)	(n=208)	(n=1484)	(n=200)	(n=1450)
	Yes Frequency y(%)	No Frequency (%)	Yes Frequency y(%)	No Frequency (%)	Yes Frequency y(%)	No Frequency (%)	Yes Frequency (%)	No Frequency (%)	Yes Frequency y(%)	No Frequency (%)	Yes Frequency y(%)	No Frequency y(%)
1st	19(11.9)	78(7.1)	6(4.0)	61(5.7)	4(3.1)	22(2.4)	25(13.9)	50(4.2)	92(44.2)	633(42.7)	66(33.0)	681(47.0)
2nd	26(16.4)	71(6.4)	17(11.3)	101(9.4)	3(2.4)	32(3.5)	28(15.6)	98(8.2)	66(31.7)	619(41.7)	64(32.0)	538(37.1)
3rd	21(13.2)	291(26.4)	27(18.0)	199(18.5)	4(3.1)	45(4.9)	66(36.7)	454(37.9)	32(15.4)	147(9.9)	46(23.0)	160(11.0)
4th	44(27.7)	324(29.4)	29(19.3)	236(21.9)	7(5.5)	49(5.4)	42(23.3)	370(30.9)	12(5.8)	66(4.4)	23(11.5)	55(3.8)
5th	42(26.4)	303(27.5)	49(32.7)	347(32.2)	21(16.5)	76(8.3)	17(9.4)	202(16.8)	3(1.4)	16(1.1)W	1(0.5)	15(1.0)
6th	7(4.4)	35(3.2)	22(14.7)	134(12.4)	88(69.3)	687(75.4)	2(1.1)	25(2.1)	3(1.4)	3(0.2)	0(0.0)	1(0.1)
χ^2	$\chi^2=32.638$		$\chi^2=2.135$		$\chi^2=10.003$		$\chi^2=45.700$		$\chi^2=18.590$		-	
	n.s		n.s		n.s		n.s		n.s			

Note 1: * $p < .01$, ns=not significant

Note 2: As to the fire, chi-squared test was not conducted due to its low frequency of incidence.

Note 3: The response rates of each disaster differed from each disaster, because the facilities that did not respond to the questions were excluded.

4. The Consciousness of Disaster Prevention of the Employees of the Facilities

Table 6 shows the influence of the experiences of the damages from disasters on the consciousness of disaster prevention of the employees of the facilities. When the facilities where the elderly requiring care services live get damaged from disasters, the elderly residents are directly and indirectly affected by the damages. The preparation to minimize the damages such as predicting damages and planning emergency evacuation needs to be made and it is affected by the degree of the concerns about natural disasters and the consciousness of disaster prevention. Therefore, the consciousness of disaster prevention and the preparation for responding to the damages of the employees of the facilities should be raised.

According to the nationwide survey, there was not significant relationship between the scale of damages and the consciousness of disaster prevention, but the consciousness of disaster prevention of the employees of the facilities with the experiences of the damages from disasters was a little higher than that of the employees without them; the average degree of the consciousness of disaster prevention was 2.5.

As to the consciousness of disaster prevention of the employees of the facilities, that of 18.3% of the facilities was very high and that of 48.6% of the facilities was high. The facilities with the experiences of the damages from disasters showed the higher degree of the consciousness of disaster prevention than those without them; in the facilities without the experiences of the damages from disasters, the consciousness of disaster prevention of 8.2% of the facilities was very high and that of 44.0% was high. Meanwhile, among the facilities that answered that they had a high degree of the consciousness of disaster prevention, the percentage of those with the experiences of the damages from disaster was 66.9% and the percentage of those without them was 52.2%. Among the facilities that answered that they have very high degree of the consciousness of disaster prevention, the percentage of those with the experiences of the damages from disaster was 32.1% and the percentage of those without them was 46.6%(See Table 6).

<Table 6> The Consciousness of Disaster Prevention of the Employees of the Facilities

Degree	Frequency		
	With experiences of damages from Disasters	Without the experiences of damage from disasters	No response
Very high	40(18.3%)	129(8.2%)	40(11.2%)
High	106(48.6%)	688(44.0%)	138(38.8%)
Low	65(29.8%)	644(41.2%)	151(42.4%)
Very low	5(2.3%)	85(5.4%)	19(5.3)
No response	2(0.9%)	19(1.2%)	8(2.2%)
Total	613	3953	895
Average	2.81	2.53	2.51

* The figures within parentheses are percentage

** According to the degrees of the consciousness of disaster prevention, the scores were given; four score for high degree, three for a little high, two for a little low, one for low and zero for no response.

It is reasonable to assume that the employees of the facilities who were in charge of providing care services are not prepared for the damages from natural disasters, for it was found that the consciousness of disaster prevention of the employees of 30 % of the

facilities with the experiences of the damages from disasters and 50 percent of the facilities without them was found to be in the low degree of the consciousness of disaster prevention.

The issues on the safety concerns about the emergency evacuation during the night may be brought up, because the numbers of employees on duty differs from day or night. The facilities with the experiences of the damages from disasters are more cautious about the emergency evacuation regardless of whether it happens during the day or night. It, however, cannot be sure that the placements of employees were affected by whether to have the experiences of the damages from disaster or not; for the emergency evacuation during the night, the placements of the employees need to be made more cautiously. As to the consciousness of disaster prevention of the employees of the facilities, the results of the survey showed that there was not significant influence of the experiences of the damages from disasters on it, because the average of the degree of the consciousness of disaster prevention of the employees of the facilities with the experiences of the damages from disasters was 2.8 and that of those without the experiences was 2.5, regardless of the kinds of disasters(See Table 7).

Table 7 and 8 show the current state of the fire drill and disaster prevention practice by whether to have the experiences of the damages from disasters or not. No significant difference in the times of fire drill and disaster prevention practices was found by whether to have had the experiences of the damages from disasters. About over 10 % of the facilities had conducted the disaster prevention practices and showed the high degree of concerns about the fire; 40 % of the facilities had not conducted the disaster prevention practices and about 5 % conducted the once or twice a year. There was no difference in the times of the implementation of disaster prevention practices by whether to have had the experiences of the damages from disasters.

<Table 7> The Times of Fire Drill by Whether to Have Had the Experiences of the Damages from Disasters

Fire Drill	Frequency		
	With the experiences of the damages from disasters	Without the experiences of the damages from disasters	No response
0	5 (2.3)	28 (1.8)	10 (2.8)
1~2	133 (61.0)	1084 (69.3)	236 (66.3)
3~6	50 (22.9)	286 (18.3)	72 (20.2)
7~11	16 (7.3)	63 (4.0)	11 (3.1)
12 and over	14 (6.4)	104 (6.6)	27 (7.6)
	$\chi^2=$	12.85	n.s

<Table 8> The Times of Disaster Prevention Practices by Whether to Have Had the Experiences of the Damages from Disasters

Disaster Prevention Practice	Frequency		
	With the experiences	Without the experiences	No response
	of the damages from disasters	of the damages from disasters	
0	89 (40.8)	632 (40.4)	133 (37.3)
1~2	109 (50.0)	758 (48.4)	180 (50.6)
3~6	14 (6.4)	117 (7.5)	27 (7.6)
7~11	1 (0.5)	23 (1.5)	5 (1.4)
12 and over	5 (2.3)	35 (2.3)	11 (3.1)
	$\chi^2=$	3.69	n.s

In July, 2008, Central Disaster Prevention Council emphasized the reinforcement of the response ability to disasters with overriding priority as the measures for disaster prevention of 2009; in order to raise the response ability to disaster situations, the measures have to be taken to devote to cultivate the men of ability and to establish the system to enable to rescue and support victims promptly, to reinforce the base of the disaster prevention and the ability of quick responses with maintaining equipments and to be ready by simulating the potential damages from natural disasters and drilling to deal with them via the network among the related agencies. To protect the residents of the facilities, to secure their safety and to respond promptly and appropriately, disaster prevention practices should be implemented. Diverse situations need to be considered for the preparation of measures; e.g., the building where people requiring care services live get damaged, the disaster situations dragged out for too long.

In this study, to research the consciousness of disaster prevention of the employees, the preparedness of disaster prevention of the facilities and the preparedness of the measures to secure the safety of the residents in the facilities in disaster situations, it was asked whether the explanation about the measures of disaster prevention have been given to the residents and their families during the admission process; when people requiring care services get admitted to the facility, the explanation about the facilities, the life in the facilities and the unexpected circumstances such as disaster situations must be given to the residents and their families (See Table 9).

<Table 9> Average Scores by Whether to Have Had the Experiences of the Damages from Disasters and the Types of Disasters

(*n*=2139)

Types of Disasters	Groups	Frequency	Average score
Wind damages from typhoon	Entire Facilities	2139	2.61
	Facilities with the experiences of the damages from disasters	174	3.19
	Facilities with the experiences of wind damages	83	4.28
Earthquake	Entire Facilities	2139	4.70
	Facilities with the experiences of the damages from disasters	201	4.71
	Facilities with the experiences of wind damages	63	5.36

Note: The average scores were calculated by converting the ranks to scores; the first rank to six score, the second to five, the third to four, the fifth to two and the sixth to one.

In the 46.6% of the facilities, the explanations about the disaster prevention, emergency evacuation and contact with the families had given regardless of whether to have had the experiences of the damages from disasters or not; there was no significant difference between the facilities with the experiences of the damages from disaster(48.2%) and those without them(45.1%)(See Table 10).

<Table 10> Whether to Explain the Plan of Disaster Prevention to the Residents and their Families during the Admission Process

	With the Experiences Of the Damages from Disasters(<i>n</i> =218)	Without the Experiences Of the Damages From Disaster(<i>n</i> =1565)	No response (<i>n</i> =356)
	Frequency(%)	Frequency(%)	Frequency(%)
Providing the explanation to the residents and their families	105 (48.2)	706(45.1)	154(43.3)
Not providing the explanation to the residents and their families	108(49.5)	829(53.0)	191(53.7)
No response	5(2.3)	30(1.9)	11(3.1)
	$\chi^2=$	3.095	n.s

Note: n.s= not significant

The lessons from the experiences of the damages from disasters should be reflected to the preparation of disaster prevention including the improvement of the consciousness of disaster prevention of the employees of the facilities, the improvement of the consciousness of the residents' families to support the disaster prevention, the frequent implementation of fire drill and disaster prevention practices, the preparation of relief goods for emergency situations and the emergency evacuation plan.

In the preliminary survey that was conducted in Saga Prefecture, even though there were about 40% of the facilities that had experienced the damages from disasters, 8.3% of them didn't still explain disaster prevention and evacuation to the residents and their families. Both the residents and the employees of the facilities didn't show the high degree of the concerns about disaster prevention and evacuation¹⁴⁾. In this study, it was also shown that 49.5% of the facilities with the experiences of the damages from disasters and 53.0%(about one half) of the facilities without them didn't provide the explanation about disaster prevention during the admission process.

Tanaka¹⁵⁾ suggested that the living of the elderly in the emergency shelter needs supports and the countermeasures against the damages from disasters considering the diversity of disaster situation need to be reviewed to solve the problems from the evacuation of disaster-vulnerable people and the difficulty of the living during evacuation; in the facilities where the elderly live who cannot live without other's assistance and require care services, there are several things to be considered such as the damages of the facilities, the individualized responses to the evacuation and care needs of the elderly and the necessity of the first aid medicine. In addition, how to communicate and share the information in disaster and emergency situations and who will be in charge of deciding to provide with supports or to accommodate local residents in disaster situations should be determined in advance in the facilities where people requiring care services will be served. It is critical that the parts and responsibilities between the facilities and community in future disaster situations should be clearly determined.

Due to the increased frequent occurrence of natural disasters, the degree of safety of building(s) and the response ability in disaster situations may be the significant factors to choose the facilities. Therefore, the consciousness of disaster prevention of the employees of the facilities should be raised as well as the ability to take care of the elderly requiring care services. The employees of the facilities should secure the safety of residents and the facility by understanding the plan of disaster prevention of local government and community and maintaining the crisis management system of the facility including their own evacuation plan of the facilities.

IV. Considerations

Since Hanshin Awaji Earthquake Disaster occurred in 1995, the concerns about the disaster prevention of social welfare facilities had slowly grown. Due to the Chuetsu Oki

Earthquake, nursing facilities began to be used as the emergency shelters and social welfare professionals started taking part in supporting the emergency evacuation procedure. In this social atmosphere, social welfare facilities have become acknowledged as the facilities to secure the safety of the residents, to provide them with supports for emergency evacuation and to assist people in disaster situations.

The storm surge in Shiranuhi town of Kumamoto Prefecture in 1989, which had occurred before the earthquake in 1995 caused the damages to nursing home for the aged; the elderly could not escape, because they missed the evacuation time and also there was the case that the elderly who were living at the first floor were killed, because they couldn't evacuate to the second floor²⁾. The sediment disaster by heavy rain caused 16 casualties in Yamaguchi Prefecture in July, 2009 and, among them, 6 casualties were living at intensive-care old people's home. These cases showed that the disaster prevention of the facilities to accommodate the elderly requiring care services needs to be emphasized.

In this study, the influence of the experiences of the damages from disasters on the preparation for disaster prevention were analyzed. In results, it was found that they have affected the preparation for disaster prevention, even though the percentage of the facilities with the experiences of the damages from disasters was small. That is, the facilities with the experiences of the damages from disasters were more likely to pay higher attention to the safety than those without them. Based on those damaged experiences, if the employees of the facilities were prepared by raising the consciousness of disaster prevention of employees, being ready with simulating the specific conditions on disaster situation in advance and explaining to the residents and their families and preparing the plan about safety and emergency evacuations, the safety of the facilities could be more secured.

In addition, because the number of employees on duty during the night is smaller than during the day, the measures for the disaster situations during the night should be prepared for the shortage of employees to secure the safety of the residents.

The residential facilities for the elderly requiring care services that have social welfare professionals may become the emergency shelter for local residents in disaster situations and need to be prepared for them, but the number of accommodations and the scale of assistance may depend on the preparedness of the facilities for disaster situations.

The employees of the facilities should secure the safe living of people requiring care services(the elderly who are living in the facilities) and simultaneously provide the support for the local residents who would escape from disaster to them. Therefore, the employees of the facilities for people requiring care services should have the high degree of the consciousness of disaster prevention and mitigation and be prepared for disaster situations thoroughly.

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REVIEW ARTICLE

Review of the Studies on Exercise GenomicsJaejong BYUN¹⁾

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ABSTRACT

This study aimed to provide basic information for Genome and Exercise. Exercise Genomics was begun to investigate genetic differences that may affect fitness or performance at the DNA level in the 1990s. Recently the study of exercise genomics becomes very large. To provide the current results of the researches on exercise genomics, we review the recent publications and the controversy in the interpretation of the results from marker studies related to exercise genomics. Comparable reviews were currently published for weight loss treatment and drug-based therapy of type 2 diabetes. Other than the growing number of papers related to the influence of genetic polymorphisms on physical performance and adaptation to exercise training, not much is known regarding the practical use of genetic markers in exercise treatment and training.

< Key-words >

Exercise Genomics, Physical Activity, ACTNS3, APOE, ACE

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I . The Roles of Genome in Relation to Exercise Science and Health

Exercise physiologists have conducted the studies and experiments on the physiological reactions or adaptation to various exercise stress and reported the results of those as the average values. However, such results that have been reported as the average values have shown the limitation that cannot explain the exercise response of each individual and the diversity of the levels of exercise adaptation. For example, the Heritage Family Study by Bouchard et al. in 1999 showed that there were the great differences among individuals in the maximal oxygen uptake during exercise. In particular, even though some subjects who participated in the twenty-week exercise program showed no or a little change of maximal oxygen uptake, the results were reported that the maximal oxygen uptake increased to 400ml after completing the twenty-week exercise program, which may cause the misunderstanding that all the people's maximal oxygen uptake increased after exercising. Moreover, according to the study of Bouchard and Rankinen(2001), there were the significant differences in the changes of blood pressure, heart rate and HDL cholesterol among individuals while doing aerobic exercise.

Conclusively, it is not reasonable to present the results with the average values in spite of the diversity of the physical reaction or adaptation to exercise stress. To explain the differences among individuals, we may significantly consider three factors; experimental error, environmental factor and genetic factor. Among those three factors, the individual differences in the results of exercise within the group may be explained by the genetic factor, because experimental error and environmental factor may be revised via experimental design or statistical analysis and more broadly the development of scientific technology or experimental technology. In this context, it is reasonable to assume that genetics may play a great role for exercise science and health.

II . Exercise Genomics

Exercise genomics refers to the study of genetics related with the prescription of exercise and physical activity. The significance of genetic factors for exercise stress is backed up by the reactivity of various phenotype to exercise training and the identification of those genetic factors becomes the field of exercise genomics; that is, a person who has certain genetic traits may sensitively respond with certain exercise intervention in certain phenotypes and may not respond with certain other phenotype at all. For example, while some people's maximal oxygen uptake markedly increased, they didn't show the response to the control of blood pressure after implementing aerobic exercise; if such people went to hospital for the treatment of high blood pressure, they would find out that exercise training to blood pressure phenotype would be ineffective via genetic monitoring and the prescription for them would be changed. That is to say, it may

be very useful to know the genetic factor to enable to forecast the responses to exercise training for more efficient medical treatment.

To present exercise prescription, genetics may be applied to find optimum ways of exercise intervention for generally improving disease risk factors and the ability to perform sports in priority.

III. The Recent Tendency of the Research on Exercise Genomics

1. The Summaries of Recent Research Achievements

The development of exercise genomics has been accelerated after 2000 just like other fields of genomics, when DNA base sequencing has begun to be generalized. For example, while 1) 20 studies on the endurance exercise performance and genetic test, 2) two studies on the traits of muscle strength or anaerobic power and genetics and 3) eight studies on the genetics in relation to the reactions to blood lipid and inflammatory markers were published by 2000, the range of the studies has been broaden and the number of 1), 2) and 3) had increased to 53 studies, 23 studies and 32 studies respectively between 2001 and 2005; since then the number of studies has continually increased. As the number of studies has steadily increased, there were four fields of the study that have shown visible research results as follows:

First, there is the field of the study on the nonsense mutation in the skeletal muscle gene that is known as ACTN3 (alpha-actinin-3) in fast twitch muscle fiber. Nonsense mutation results in the complete destruction of ACTN3 gene, but it doesn't cause muscular diseases to people who are homozygous for this mutation. Researchers have studied whether this mutation affects the muscle phenotype that doesn't cause diseases or not.

Second, there is the field of the study on Alzheimer's disease. The outbreak and progress of Alzheimer's disease are related with genetic variation of ApoE gene. Researchers have focused on the interaction between physical activity and ApoE phenotype.

Third, there is the field of the study on world-class players' exercise performance. What makes excellent players? Genetic factor, remarkable motivation or appropriate training method? Or all of them are required to be excellent players? Those questions have motivated to identify the unique genetic factors that contribute for the exercise performance. The researchers on exercise genomics have conducted many studies on base-sequence variation of ACE gene and the ability to do diverse types of exercises and sports.

Fourth, there is the field of the study on the myostatin gene and skeletal muscle phenotype, particularly, the change of muscle mass.

<Table 1> The Summary of Research Achievements

	□2000	2000□2005
Endurance exercise performance	20 studies	53 studies
Muscle strength or anaerobic power	2 studies	23 studies
Blood lipid and inflammatory markers	8 studies	32 studies

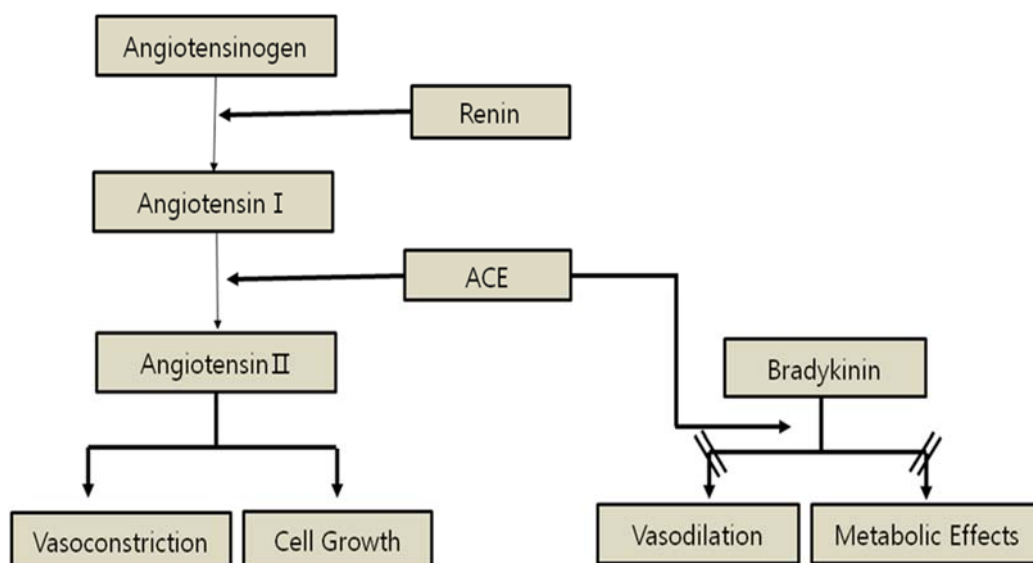
Source : Lee Samjun, Kim Sangho, Ran Won, Bak Jinhong, Lee Youngil, Seo Annold, La Seongmin & Choi Hyeonggyu(2008) Genetics: Primer for Exercise Science and Health, Daehan Media. Seoul

2. ACTN3 and Exercise Performance

It is expected that some studies on genetics may provide the fundamental information that would be the base of the research design in relation to genome, as they became to form the hypothesis that the influence may be given over various traits such as dominant trait, recessive trait and sex linked trait via newly-identified gene polymorphism.

ACTN3 belongs to the alpha-actinin protein family that plays significant roles in many tissues. In the alpha-actinin protein family, there are two interesting proteins such as ACTN2 and ACTN3 that are mainly expressed in the skeletal muscular tissues. Skeletal muscles are composed of many muscular cells and those cells are divided into Type□ and Type□ according to various metabolic and contraction traits. Type□ muscle fiber is dominated by aerobic metabolism and its contractibility is lower than Type□. Type □ muscle fiber has the high degree of contractility and many traits of anaerobic metabolism. ACTN2 gene is expressed in all the fiber of skeletal muscle, but ACTN3 is found only in Type □ muscle fiber. In 1999, North and co-workers identified the nonsense polymorphism in ACTN3 gene, known as R577X(R577X polymorphism replaces arginine by stop codon). X/X genotype transporter results in the deficiency of ACTN3 protein in muscle fiber. Many studies on muscular diseases published in the mid-1990's identified the complete deficiency of ACTN3 gene, which is deeply related with the foot disease among muscular diseases. In particular, the deficiency of ACTN3 gene is deeply related with certain types of myatrophy. Thus, R577X mutation is useful to understand muscular diseases and it is intuitable that the mutation is a nonsense allele.

R577X polymorphism of ACTN3 gene results in the complete deficiency of ACTN3 protein in the X/X genotype transporter. People who have the complete deficiency of ACTN3 protein may not have muscular disease, but this kind of complete deficiency of Type □ muscle fiber protein may affect the exercise performance of their muscles or muscle-related phenotype.



<Figure1> Renin-angiotensin System

Source : Lee Samjun, Kim Sangho, Ran Won, Bak Jinhong, Lee Youngil, Seo Annold, La Seongmin & Choi Hyeonggyu(2008) Genetics: Primer for Exercise Science and Health, Daehan Media. Seoul.

3. ApoE and Cognitive Ability

Now the number of patients with Alzheimer's disease is assumed to be 20 million in the world and it became to be the commonest degenerative brain disease. The Alzheimer's disease that is one of senile dementia generally breaks out with mild forgetfulness at first in 60's; and then, causes the confusion with time or place, wandering, psychological disturbance and finally the personality changes. Ageing has been known as the major contributing factor of Alzheimer's disease, as it is estimated that the half of the population aged 80 years and over are at risk of this disease. Even though no medicine for this disease has been developed, it is critical to get early diagnosis, because it was found that the medication to activate nerve transmission is markedly effective to some patients.

ApoE ϵ 4 allele is the powerful predictor of the outbreak of Alzheimer's disease; in particular, it is more powerful predictor in the homozygous transporter. Currently researchers have been intensively conducted the studies on gene-related modification factors; in particular, they have devoted their efforts to the studies on the probability of the improvement of ϵ 4 allele that is highly associated with physical activity and cognitive decline.

4. ACE and Exercise Performance

Angiotensin-converting enzyme (ACE) gene comes in two alleles and is expressed by the insertion (I allele) and deletion (D allele) of 287 base pairs in the latter part of gene. ACE gene is expressed with three genetic polymorphisms; homozygous ACE II genotype

and heterozygous ACE ID genotype, which are insertion alleles and homozygous ACE DD genotype, which is a deletion allele (Montgomery et al, 1998; Jones et al, 2002). According to the precedent studies, ACE I allele was markedly presented among the endurance athletes (Montgomery et al., 1998) and ACE D allele among the sprint/power athletes. The studies in the aspect of diseases reported the high degree of association among the plasma angiotensinogen concentration, renin plasma activity, plasma ACE activity, BMI (Cooper et al., 1997) and obesity.

The reason that ACE in the renin-angiotensin system is important is because ACE became the candidate gene for the studies on the endpoints of cardiovascular system; but it doesn't refer to the phenotype to specific renin angiotensin system. ACE gene is one of the genes that have been most perfectly studied in terms of exercise performance phenotype.

5. Myostatin and Muscle Mass

Myostatin is found in the animal model and was identified as the negative regulatory element in the growth of skeletal muscle. Researchers could infer that such genetic mutation is the change by the normal growth of human muscle or the response to the various exercise stresses in terms of such importance of the growth regulatory element.

IV. Human Gene Map for Performance and Health-related Fitness Phenotype

It is reasonable to assume that many projects have been conducted for the accurate reviews of genetic study on genetic traits, looking at the current study results in the field of exercise performance and health-related fitness based on the efforts of many researchers. However, those projects may not be easy; that is to say, it is difficult to discuss various phenotypes in such a broad field of exercise performance and health-related fitness, for it is difficult to combine many kinds of exercises with various traits. In spite of such difficulty, Dr. Bouchard, who is the mastermind of this field, have presented the paper by reviewing all the papers of candidate genes using case-control and other designs published until the end of 2000; furthermore, Bouchard and co-workers have regularly updated it by reviewing all the newly published papers.

In results, Human Gene Map for Performance and Health-related Fitness Phenotype appeared in the *Medicine and Science in Sports and Exercise* in 2001 and has been updated with addition and emendations every year. Thanks to his efforts of reviewing the papers, the first human gene map for physical performance and health-related fitness traits appeared. Such the human gene map has been updated with addition and emendations; therefore, the tables have become to be broader and the list of such papers has been printed via positive gene-linkage analyses in terms of various phenotypes. Even though the papers that had reported negative results were reviewed and the list of such papers was printed in the year when they were published, such genes were excluded

from the gene map and such papers were also excluded from the updated papers. At first, the review aimed to present the history of genetics in the field of performance and health-related fitness phenotypes until the end of 2000; in addition, gene map intended to present the summarization of the most recent studies on broad range of phenotypes in the field of exercise performance and health-related fitness. The most recent gene map that is valid for the review(Rankinen Bray et al., 2006) identified that 170 genes and its region are positively related with traits. 29 genes and their regions that were reported in the first human gene map in 2001 have been remarkably developed. The greater growth in the field of the human gene map for exercise performance and health-related fitness phenotypes is expected via these reviews.

V. The Summaries of the Studies on Exercise and Genome in 2012

1. The Summaries of Research Tendency

- A small number of excellent articles on exercise genomics issues were published in 2012.
- New reports on variants in ACTN3 and ACE
 - increased the level of uncertainty regarding their true role in skeletal muscle metabolism and strength.
- Positive effects of regular physical activity on body mass index as assessed by their FTO genotype.
- The serum level of triglycerides / the risk of hypertriglycemia
 - : SNP in the NOS3 ↔ Physical activity level
- SNPs at the RBPMS, YWHAQ, and CREB1 loci
 - : strong predictors of changes in submaximal exercise heart rate

2. Physical Activity Behavior and Exercise Intolerance

- No new major human studies related to the molecular genetics of human physical activity behavior.
- Genomewide quantitative trait loci(QTLs) screening for wheel-running phenotype in mice and the first animal model targeting a specific mutation causing McArdle disease were published in 2012.
 - important contributions to the knowledge base for human studies.

3. Muscle Strength and Power

- Less clarity in our understanding of the influences of specific genes on skeletal muscle strength-related traits.
- Multiple articles examined the ACTN3 R577X polymorphism and the possible importance of the X/X genotype on cellular or metabolic aspects of skeletal muscle(Vincent et al, 2012)

- A study examining the influence of testosterone and androgen receptor gene (AR) CAG repeat polymorphism in 183 young and old men: free testosterone was associated with knee extensor muscle strength (Pollard et al, 2012).

4. Cardiorespiratory Fitness and Endurance Performance

1) Study 1

- the association of elite athlete status and the ACTN3 R577X polymorphism: the odds ratio (OR) of a "world-class" athlete having the XX genotype versus the RR+RX genotype was 3.74 compared with "national" level athletes (Eynon et al, 2012).

2) Study 2

- the response to an exercise program of submaximal exercise capacity (the HERITAGE Family study)
- : a QTLs on chromosome 13q12
indicators of submaximal exercise capacity
→ (the strongest evidence being for the training-induced changes in VO_2 at 60% of max)
(Rice, 2012).

3) Study 3

- verify whether the rs6552828 polymorphism in the acyl-coenzyme A synthetase long-chain family member 1 gene (ACSL1) was associated with elite endurance athlete status
⇒ a strong marker of $\text{VO}_{2\text{MAX}}$ trainability in GWAS
- : a marginal association was observed in Chinese male athletes but not in females or in male athletes from Spain
(Bouchard et al, 2011).

4) Study 4

- investigated the influence of uncoupling protein 2 (UCP2) and 3 (UCP3) polymorphisms on training-related changes in two different cohorts undergoing controlled physical training sessions
- : the UCP2 866G>A variant was nominally associated with the DE response to training (Dhamrait SS, 2012)

* Delta efficiency (DE)

a measure of skeletal muscle contraction efficiency

- current exercise training trend increase work related power and capacity



work efficiency (reduce the energy cost)

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SHORT PAPER

特別支援教育成果評価尺度 (SNEAT) の開発

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I. 研究背景

2011 年、中央教育審議会初等中等教育分科会教育課程部会において、「児童生徒の学習評価の在り方について（報告）」（以下、「報告」とする。）が取りまとめられ、その中で、学習評価の重要性及び評価規準・評価方法の研究開発の推進を行うことを示した。学習評価とは、学校における教育活動に関し、子どもたちの学習状況を評価するものである（中教審, 2011）。教育分野においてのアウトカムの多くは学力測定を用いてきたが、特別支援学校において学力をアウトカム指標として用いるのは困難な点が多く、自立活動の目標達成等をアウトカム指標としてきた（小原ら, 2014）。しかし、野崎・川住（2012）が特別支援教育教員に行った調査によると、「学習評価」「実践評価」のいずれについても、6 割以上の担当教員が困難さを感じている傾向にあることが明らかとなった。また、特別支援教育において妥当性の検証を行い、科学的に開発された教育成果評価尺度はほとんど見当たらない現状である。

そこで、特別支援教育の教育成果を評価する尺度の開発に至った。小原ら（2014）は、①特別支援教育の対象となる児童生徒の QOL 向上が課題となっていること、②教育成果の評価には子どもの QOL の視点になった評価尺度が必要であること、の 2 点を鑑み、教育成果を評価する尺度に健康関連 QOL（以下、HRQOL）を用いる可能性について検証した。その結果、HRQOL の「体の痛み」以外の 7 領域はそれぞれ対応しており、自立活動と HRQOL は関係性があることが明らかになり、特別支援教育における教育成果評価尺度を開発するにあたって、HRQOL を取り入れた尺度開発の可能性があることが示唆された。

本稿では、それらの結果をもとに、特別支援教育の教育成果を測定する尺度開発におけるこれまでの開発過程について報告する。尺度については、特別支援教育成果測定尺度 (Special Needs Education Assessment Tool) と名付け、以下、SNEAT とする。

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II. SNEAT について

1. 構造と特徴

SNEAT は、主に自立活動の授業成果を評価する尺度である。SNEAT の質問項目は、体の健康、心の健康、社会生活機能の 3 領域 11 項目から構成されている（図 1）。これら 11 項目は、児童生徒の教育達成度に合わせて授業担当教員が 1～5 で段階的に評価し、5 が最も良い評価である。授業に参加する児童生徒が 1 名の場合は、その児童生徒の変化に基づいて授業の評価を行い、複数名の場合は、全体の平均的な変化に基づいて授業の評価を行うものである。SNEAT が評価する授業の対象児童生徒は、以下の条件を満たせば障害種を問わず使用することができる。

- ① なんらかの意思表示ができるレベルの児童生徒
- ② 姿勢と運動・動作が一時的でも改善する可能性のある児童生徒

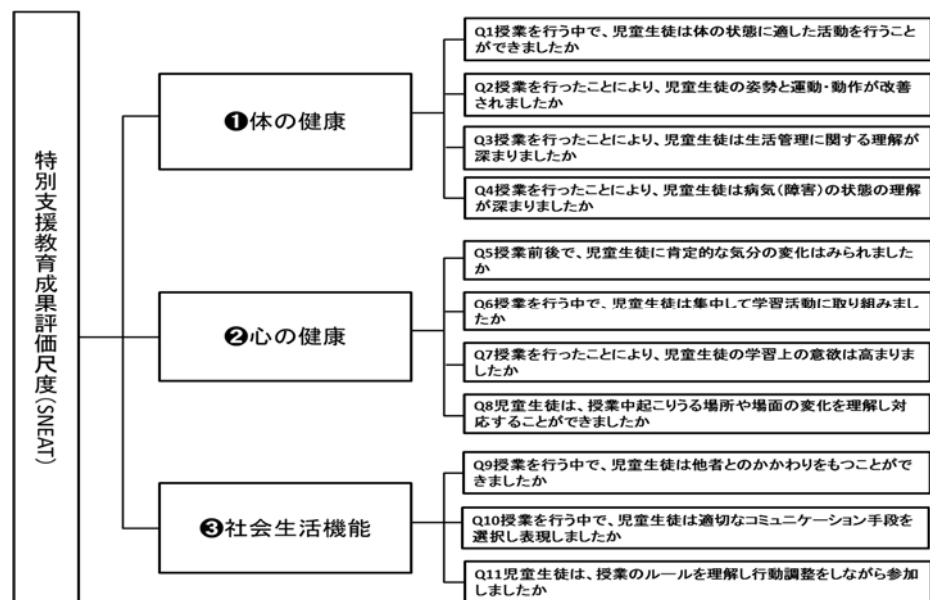


図1 SNEAT の構造

SNEAT は、自立活動の内容に QOL の概念を加え、児童生徒の QOL 向上の視点から教育成果を評価できる新しい尺度である。近年、特別支援教育では QOL の向上が求められていること、自立活動では ICF の概念を取り入れられていることを踏まえ、SNEAT の各項目には、QOL や ICF の概念を取り入れた（表 1）。

表1 SNEAT の項目に含まれる概念

領域	SNEAT の各項目	自立活動	ICF	QOL
体の健康	Q1 授業を行う中で、児童生徒は体の状態に適した活動を行うことができましたか	健康の保持 身体の動き	心身機能 身体構造 健康状態	身体機能
	Q2 授業を行ったことにより、児童生徒の姿勢と運動・動作が改善されましたか	身体の動き	心身機能 身体構造 活動	身体機能
	Q3 授業を行ったことにより、児童生徒の生活管理に関する理解が深まりましたか	健康の保持	心身機能 身体構造 健康状態	全体的健康感
	Q4 授業を行ったことにより、児童生徒の病気(障害)の状態の理解が深まりましたか	健康の保持	心身機能 身体構造	全体的健康感
心の健康	Q5 授業前後で、児童生徒に肯定的な気分の変化はみられましたか	心理的な安定	心身機能	心の健康
	Q6 授業を行う中で、児童生徒は集中して学習活動に取り組みましたか	心理的な安定	活動	日常生活機能(精神)
	Q7 授業を行ったことにより、児童生徒の学習上の意欲は高まりましたか	心理的な安定	活動	活力
	Q8 児童生徒は、授業中起こりうる場所や場面の変化を理解し対応することができましたか	心理的安定 環境の把握	活動 参加	心の健康
社会生活機能	Q9 授業を行う中で、児童生徒は他者とのかわりをもつことができましたか	人間関係の形成	活動 参加	社会生活機能
	Q10 授業を行う中で、児童生徒は適切なコミュニケーション手段を選択し表現しましたか	コミュニケーション 環境の把握	活動 参加	社会生活機能
	Q11 児童生徒は、授業のルールを理解し行動調整をしながら参加しましたか	人間関係の形成 コミュニケーション 環境の把握	活動 参加	社会生活機能

2. 領域の設定

概念や価値観が共通している部分のクロス分析をして授業評価としてふさわしいものを抽出した

領域の設定では、自立活動と QOL (HRQOL と子どもの QOL)、ICF に共通した概念であり、さらに自立活動の授業評価を行う上でふさわしいとされる領域を設定した。SNEAT の領域は、「体の健康」、「心の健康」、「社会生活機能」の 3 領域である。「体の健康」とは、身体機能や身体の動き、健康の保持を含む体の健康に関する領域である。また、「心の健康」とは、心理的な安定や活力を含む心の健康に関する領域である。「社会生活機能」とは、人間関

係の形成やコミュニケーション、活動や参加等を含む社会生活機能に関する領域である。

3. 項目の定義

(1) 体の健康

「Q1 授業で行った活動は、児童生徒の体の状態に適した活動を行うことができましたか」とは、児童生徒が自身の体の状態（体温、体力、痛み等を含む体調）に対して適度に活動を行ったかということである。

「Q2 児童生徒の姿勢と運動・動作が改善されましたか」とは、児童生徒が日常生活の基本となる姿勢保持や運動・動作に改善が見られたかということである。

「Q3 児童生徒は生活管理に関する理解が深まりましたか」とは、児童生徒が生活リズム、食事、排泄、服薬、着替え、休憩等を含む日常生活の管理に関する理解が深まったかということである。

「Q4 児童生徒は病気（障害）の理解が深まりましたか」とは、児童生徒の学習上・生活上の病気（障害）の特徴や、病気（障害）による制限に関する理解が深まったかということである。

(2) 心の健康

「Q5 児童生徒に肯定的な気分の変化はみられましたか」とは、授業中児童生徒が笑顔、「快」の状態、リラックスした表情等から読み取れる気分の変化がみられたかということである。

「Q6 児童生徒は集中して学習活動に取り組みましたか」とは、児童生徒が授業中に学習内容に対して注意しながら活動に取り組んでいたかということである。

「Q7 児童生徒の学習上の意欲は高まりましたか」とは、児童生徒が新しいことを知る楽しさ、課題に対する達成感、「またやりたい」という期待感の表出から読み取れるやる気がみられたかということである。

「Q8 児童生徒は、授業中起こりうる場所や場面の変化を理解し対応しましたか」とは、児童生徒が、授業内容の変化、教室の変更、友人の不在等、授業中に起こりうるあらゆる場所や場面の変化に対して対応したかということである。

(3) 社会生活機能

「Q9 児童生徒は、授業中、他者とのかかわりをもちましたか」とは、児童生徒が授業中、子ども同士、教師等、授業に関わった全ての人とかかわりをもったかということである。

「Q10 児童生徒は、授業中、適切なコミュニケーション手段を選択し表現しましたか」とは、児童生徒が言語や各種の文字や記号、機器等を含む全ての言語的・非言語的手段を適切に選択し表現（活用）したかということである。

「Q11 児童生徒は、授業のルールを理解し行動調整をしながら参加しましたか」とは、児童生徒が、授業でのルールを理解し、席を離れない、私語をしない、指示に従う等に加え、教師が設定した授業のルールに沿った行動しながら授業に参加したかということである。

4. 採点方法

教育現場で活用しやすいよう合計 100 点に設定した。各領域の合計点数をみると、「体の健康」が Q1 のみ 5=5 点、4=4 点、3=3 点、2=2 点、1=1 点とし、Q2~Q4 は 5=10 点、4=8 点、3=6 点、2=4 点、1=2 点とし、領域合計 35 点とした。「心の健康」は、Q5 のみ 5=5 点、4=4 点、3=3 点、2=2 点、1=1 点とし、Q6~Q8 は 5=10 点、4=8 点、3=6 点、2=4 点、1=2 点とし、領域合計 35 点とした。「社会生活機能」の Q9~Q11 は、5=10 点、4=8 点、3=6 点、2=4 点、1=2 点とした。各領域は、授業目標の達成難易度の低い項目から順に並べている。合計 100 点にするため、「体の健康」と「心の健康」で最も達成難易度の低い Q1 と Q5 は重み付けを低くした。

ただし、各項目の重み付けに関しては、構成概念妥当性の因子分析後、再度行うこととする。

5. SNEAT の活用可能性

(1) 教師自身が評価することが可能

SNEAT は科学的手法（妥当性の検証）を用いて開発する尺度であるため、教師自身が評価を行っても評価点数に個人差が現れにくい尺度である。また、評価は授業を受けた児童生徒の状態の変化に基づいて行うため、児童生徒の教育成果及び担当教師の授業評価を同時に行うことができる。

(2) 指導案の評価欄として使用可能

現在の指導案の評価欄に、そのまま SNEAT が活用可能であり、授業改善のための指標として活用できる（図 2）。

(3) 1 回限りの教育実践でも、一定期間行う教育実践でも評価することが可能

授業評価として用いる際、1 回限りの教育実践でも、一定期間行う教育実践、あるいは単元毎の教育実践でも評価することが可能である。一定期間あるいは単元毎等の継続的な授業評価の場合は、1 年間の推移をみる事ができる。

(4) 領域別評価を行うことで、児童生徒の特性に合った目標設定の手助けとなる事が可能

SNEAT は、「体の健康」、「心の健康」、「社会生活機能」の 3 領域で構成されているため、得点が低い領域に関する子どもの特性や、教育実践の課題等を領域毎に見ることができる。そのため、児童生徒の特性に合った目標の設定や授業設定が可能となる。

図 2 SNEAT を活用した指導案例

(5) 「個別的教育支援計画」「個別の指導計画」等の目標を立てる際に活用可能

支援目標・指導目標が SNEAT のどの領域・どの項目に該当するかによって、SNEAT の領域・項目を参考に具体的な支援目標や指導目標を決定する手助けとなる。すなわち、目標を立てる際の一定の指標となることが期待される。

(6) 日本全国で SNEAT を活用することが可能

SNEAT は、科学的手法を用いて開発する尺度であるため、授業評価の一定指標として日本全国で活用されることが期待される。全国で使用されると、SNEAT を使用した授業実践例等を検索できるようになる可能性も期待される。

III. SNEAT の開発過程

1. 開発手順

SNEAT の尺度開発は図 3 の過程で行う。構成概念の検討及び項目収集は、研究者間での協議によって行い、SNEAT の試案を作成する。その後、SNEAT 試案の構成や内容について、県教育研究機関の教員や現職教員に説明し、内容的妥当性の検証を行う。内容的妥当性については、より現場で使用しやすい尺度にするために、面接による意見調査と質問紙調査の 2 回実施する。それらの結果を基に、SNEAT 第一版を完成させる流れである。

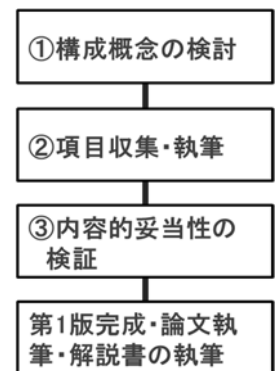


図 3 SNEAT 開発過程

2. 構成概念の決定と項目収集

SNEAT の構成概念の決定と項目収集は、小原・韓ら（2014）の結果をもとに研究者間で協議を行い決定した。ここでは、SNEAT に含まれている概念が自立活動と HRQOL の概念だけでは、現場教員には理解しづらいという意見もあり、自立活動に含まれる ICF の視点及び小児の包括的 QOL を測定する KIDSCREEN の領域や項目も検討しながら、SNEAT の構成概念の決定及び項目収集を行った（図 4）。この協議により完成した質問紙を SNEAT 試案 Ver.1 とした。

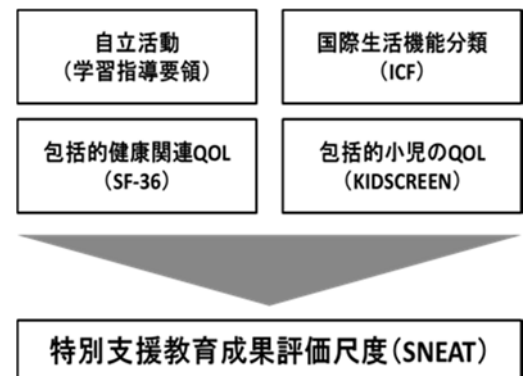


図 4 SNEAT の概念図

3. 内容的妥当性の検証

(1) 内容的妥当性の検証 I（面接形式による意見調査）

内容的妥当性の検証 I は、特別支援教育の専門家 4 名、県教育研究機関の教員 6 名に対する面接形式による意見調査を行った。教育研究機関の教員は、全員が特別支援教育免許を保有しており、特別支援学校通算教職経験年数が 13 年以上であり、中には管理職経験者も含まれていた。特別支援教育成果を評価する上で、領域及び項目が妥当であるかについて尋ね、項目の内容や言葉の表記に関する意見を自由に述べてもらった。

(2) 内容的妥当性の検証Ⅱ（質問紙調査）

内容的妥当性の検証Ⅱは、沖縄県内の特別支援学校の学部主事 23 名および沖縄県教育委員会免許法認定講習参加者の教員 66 名に対する専門家調査を行った。SNEAT の構造について 5 段階評価で尋ね、各領域の構造の妥当性について 5 段階評価で尋ねた。その結果、90% 以上の教員が SNEAT の構成及び内容が妥当であると回答した。このことから、SNEAT 全体の構造及び、各領域の構造に関する妥当性が確認された。また、項目の内容や言葉の表記に関する意見についても自由記述してもらった。

4. SNEAT 第 1 版の完成

内容的妥当性の検証の結果をもとに、特別支援教育の研究者、QOL の研究者、県教育研究機関の教員の協議により、SNEAT 試案の修正が行われた。修正箇所としては、質問紙の配置に関する構成や対象の明確化、評価段階の基準設定、言葉の表記の明確化等があった（表 2）。また、完成した SNEAT 第 1 版は、表 3 の通りである。

表 2 SNEAT 試案 Ver.2 の内容及び言葉の表記に関する専門家調査結果

指摘内容	修正前 (Ver.2)	修正後
全ての内容について、どのレベルのどの障害を想定しているのか理解が難しい。知的障害、肢体不自由、盲、聾等、障害は、多種・多様化する中、それを統一して測定するのは難しいと思います。	SNEAT に表記なし	SNEAT の説明文に以下を追加 「SNEAT が評価する授業の対象児童生徒は、以下の条件を満たせば障害種を問わず使用することができます。 1. なんらかの意思表示ができるレベルの児童生徒 2. 姿勢と運動・動作が一時的でも改善する可能性のある児童生徒」
「理解」は教師側の理解と解釈していいのですか？それとも子どもが理解したということですか？	「Q3 授業を行ったことにより、児童生徒の生活管理に関する理解が深まりましたか」 「Q4 授業を行ったことにより、児童生徒の病気（障害）の状態の理解が深まりましたか」	「Q3 授業を行ったことにより、児童生徒は生活管理に関する理解が深まりましたか」 「Q4 授業を行ったことにより、児童生徒は病気（障害）の状態の理解が深まりましたか」
各項目を 5 段階で評定することになっていますが、5 段階の判断基準があると良いと思います。	SNEAT に表記なし	11 項目すべてに該当する言葉として 5＝「非常に」、4＝「かなり」、3＝「多少は」、2＝「少しだけ」、1＝「ほとんどない」と表記。ここでは、WHOQOL26 の表記を参考した。
各項目の注釈を読みながら進めましたが、注釈の内容を各項目に盛り込むと、より具体的に評価ができるのかと思いました。	注釈は、質問用紙の下部にまとめて表記	項目中に注釈を併記
「授業を行う中で」といった授業中での子どもの様子を尋ねる質問と、「授業を行ったことにより」といった授業後の子どもの様子（授業の成果）を尋ねる質問があり、回答に戸惑うと思います。	Q1、Q6、Q9、Q10 は「授業を行う中で、～」と授業中の子どもの様子を尋ねる質問項目で、Q2、Q3、Q4、Q7 は「授業を行ったことにより、～」Q5 は「授業前後で、～」と授業後の子どもの様子を尋ねる質問項目	Q1 は「授業で行った内容は～」Q2～Q11 は「児童生徒は～」という文頭にすることで、回答に戸惑うことがないようにした。

表 3 特別支援教育成果評価尺度第 1 版

Special Needs Education Assessment Tool (SNEAT)

特別支援教育成果評価尺度

- ①この尺度は、授業を行った教員が自身の教育成果を測定（授業評価）するための尺度です。授業に参加する児童生徒が 1 名の場合は、その児童生徒の変化に基づいて授業の評価を行い、複数名の場合は、全体の平均的な変化に基づいて授業の評価を行ってください。
- ②下の Q1～Q11 の各項目について、最もふさわしいと思われる番号 1～5 を丸（○）で囲んでください。
- ③SNEAT が評価する授業の対象児童生徒は、以下の条件を満たせば障害種を問わず使用することができます。
1. なんらかの意思表示ができるレベルの児童生徒
 2. 姿勢と運動・動作が一時的でも改善する可能性のある児童生徒

合計点数①+②+③

/100

①体の健康

	非常に	かなり	多少は	少しだけ	ほとんどない
Q1 授業で行った活動は、児童生徒の体の状態に適したものでしたか 「体の状態」とは、体温、体力、痛み等を含む体調のこと	5	4	3	2	1
Q2 児童生徒の姿勢と運動・動作が改善されましたか	5	4	3	2	1
Q3 児童生徒は生活管理に関する理解が深まりましたか 「生活管理」とは、生活リズム、食事、排泄、服薬、着替え、休息等を含む日常生活管理のこと	5	4	3	2	1
Q4 児童生徒は病気（障害）の状態の理解が深まりましたか	5	4	3	2	1

①「体の健康」合計点数

/35

②心の健康

Q5 児童生徒に肯定的な気分の変化はみられましたか 「肯定的な気分の変化」とは、笑顔、「快」の状態、リラックスした表情等から読み取れる気分の変化のこと	5	4	3	2	1
Q6 児童生徒は集中して学習活動に取り組みましたか	5	4	3	2	1
Q7 児童生徒の学習上の意欲は高まりましたか 「学習上の意欲」とは、新しいことを知る楽しさ、課題に対する達成感、「またやりたい」という期待感等の表出から読み取れるやる気のこと	5	4	3	2	1
Q8 児童生徒は、授業中起こりうる場所や場面の変化を理解し対応しましたか 「場所や場面の変化」とは、授業内容の変化、教室の変更、友人の不在等のこと	5	4	3	2	1

②「心の健康」合計点数

/35

③社会生活機能

Q9 児童生徒は、授業中に他者とのかかわりをもちましたか 「他者」とは、子ども同士、教師等、授業に関わった全ての人を含む	5	4	3	2	1
Q10 児童生徒は、授業中に適切なコミュニケーションの手段を選択し表現しましたか 「コミュニケーションの手段」とは、言語と全ての非言語的手段を含む	5	4	3	2	1
Q11 児童生徒は、授業のルールを理解し行動調整をしながら参加しましたか 「行動調整」とは、席を離れない、私語をしない、指示に従う等に加え教師が設定した授業のルールに沿った行動をすること	5	4	3	2	1

③「社会生活機能」の合計点数

/30

採点方法

領域ごとの点数をたして、合計点数を算出してください。

5=10 点、4=8 点、3=6 点、2=4 点、1=2 点とする。
ただし、Q1 と Q5 は、5=5 点、4=4 点、3=3 点、2=2 点、1=1 点とする。

IV. SNEAT の今後の課題

これまで、SNEAT の特徴や活用可能性、開発過程について報告してきた。SNEAT 開発にあたっては、より多くの専門家に意見を聞くことで理論的且つ実際現場で使いやすい尺度になると考えた。構成概念の決定及び項目収集では、特別支援教育の研究者間での協議を行い。加えて、県教育研究機関の教員及び現職教員に対して内的妥当性の検証を行った。その結果、90%以上の教員が SNEAT の構成及び内容が妥当であると回答した。このことから、SNEAT の内容的妥当性が確認されたと考えられる。しかし、内容的妥当性は、回答者の主観的評価であることから、科学的な妥当性の検証は不十分である。今後、SNEAT を実際に教育現場での使用を通して、科学的に SNEAT の構成に関する妥当性を検証することが必要であろう。また、実際に使用する中で上がる問題点を検討し、改善することが必要であろう。

付記

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SHORT PAPER

Development of Scale to Special Needs Education Assessment Tool(SNEAT)

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ABSTRACT

In this paper, we reported the development process of Special Needs Education Assessment Tool (SNEAT) including the structure, characteristics, scoring method and the possible use of SNEAT. It measures the outcomes of the classes for the students with special needs. The questionnaire was composed of three scopes such as physical functioning, mental health and social functioning and 11 question items. Because SNEAT intended to evaluate educational outcome based on the changes of children with disabilities with the five-point Likert scale, the SNEAT will help teachers set the educational goals of their classes. In the future, if the SNEAT needed to be scientifically verified and standardized, it would be widely used in Japan.

<Key-words>

Special Needs Education, Education Assessment, Special Needs Education Assessment Tool, Development of Scale

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SHORT PAPER

教育センターにおける特別支援教育に関する 情報提供の実態と課題 ーWeb サイトでの情報発信を通してー

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I. 問題と目的

1. 特別支援教育への転換

わが国では「今後の特別支援教育の在り方について（最終報告）」（特別支援教育に関する調査研究協力者会議, 2003）を受け、これまでの障害の程度に応じて特別の場で指導を行っていた「特殊教育」から障害のある幼児児童生徒一人一人の教育的ニーズに応じて適切な教育的支援を行う「特別支援教育」への転換が方向づけられた。これを受け、学校や地域における特別支援教育体制の条件整備を行うために様々な特別支援教育体制推進事業が実施されてきた。平成 18 年度（2006）には教育基本法の改正で障害のある者に対する教育上の支援について規定され、翌年の平成 19 年度（2007）4 月 1 日には学校教育法に特別支援教育が明記され施行されるなど特別支援教育に関する法制度の整備が進められてきた。法制度のみならず、「個別の指導計画」や「個別の教育支援計画」の策定、特別支援学校のセンター的機能などの特別支援教育の充実に向け様々な取り組みを行ってきた。

また、このような特殊教育から特別支援教育への転換の流れを受け、「学校関係者、保護者、市民等に対し、特別支援教育に関する正しい理解が広まるように努めること」（文部科学省, 2007）と理解推進を提言し、ますます特別支援教育に関する情報提供の重要性が指摘されるようになった（谷本・渡瀬, 2013）。特別支援教育が適切に実施されるには、保護者や地域の人々、教員に向けた詳細で充実した情報提供は欠かせないものである。

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2. 「個別の指導計画」と「個別の教育支援計画」

特殊教育から特別支援教育への転換の中で行われた取り組みのひとつに「個別の指導計画」と「個別の教育支援計画」の策定がある。「個別の指導計画」とは、幼児児童生徒一人一人の教育的ニーズに対応して、指導目標や指導内容・方法を盛り込んだ指導計画であり、単元や学期、学年等ごとに作成され、小・中特別支援学校の学習指導要領においても自立活動の指導に当たって作成することと規定されている。また、「個別の教育支援計画」とは他機関との連携を図るための長期的な視点に立った計画であり、一人一人の障害のある子どもについて、乳幼児期から学校卒業後までの一貫した長期的な計画を学校が中心となって作成するものである。作成に当たっては関係機関との連携が必要となり、保護者の参画や意見等を聴くことなどが求められている。尚、平成17年度の中央教育審議会の答申では今後の運用状況を踏まえつつ、「個別の指導計画」と併せて学習指導要領等への位置付けを行うことも提言されている。

このように教員は児童・生徒の実態を把握し、効果的な支援を行うために指導案や教材教具の作成と同じく、これらの計画の策定も同時に行っていかなければならない。

3. 教育センターにおける情報提供

中村（2008）は、特別支援教育が全ての教員の課題になったと言っても過言ではなく、全ての学校で特別支援教育が実施されるには教員の研修の充実が急務であるとし、全国の特別支援教育センター等で実施されている現職研修の内容や対象についてホームページを通じて調査を行っている。教育センターは都道府県教育委員会の出先機関であり、調査研究、教員研修、相談業務の3つを業務の柱としている。そのうち特別支援教育にかかる部門を独立させたのが特別支援教育センターである（渡辺・小野, 2006）。教員の現職教育の中心的役割を担っているこれらのセンターでは、特別支援教育に関する充実した情報提供を行っていくことが望まれるであろう。

情報提供の手段として書籍やパンフレット、インターネット等、様々な手段が考えられるが、その中でもインターネットは現代社会において誰もが情報を検索利用することが容易になり、直接足を運ばなくても、手軽に多くの情報を入手することができる。そういった利便性から情報提供等に多く活用されている。また、渡邊・中村・渡邊ら（2005）は障害のある児童生徒の教育に関するWebサイトでの情報提供体制の現状と課題を明らかにするため、教育センターや特殊教育センター等へアンケート調査を行っており、障害ある子どもへの支援を充実させていく上での、教育関係機関のWebサイトからの情報提供の役割について以下のようにまとめている。

4. Web サイトでの情報提供

特殊教育が行われていた時代に渡邊・中村・渡邊ら（2005）は、特別支援教育に関する情報提供の状況について教育委員会、教育センター・特別支援教育センター、特別支援学校のWebサイトの情報提供の項目や、特別支援学校が教育委員会、教育センターのWebサイトに期待する情報提供項目等についてアンケート調査を行っている。教育センター・特別支援教育センターのWebサイトで現在、どのような情報提供を行っているかという問いに対し、最も多かった回答は「研修講座・研究会情報」（88.0%）次いで「教育相談情報」（78.0%）、

次いで「指導方法」(50.0%)となっていた。また特別支援学校が教育センター・特別支援教育センターの Web サイトに期待する情報について最も回答が多かったのは「学習教材」(75.8%)であり、次いで「指導方法」(74.7%)、次いで「研修講座・研究会情報」(72.0%)となっており、教員は学習指導に役立つような具体的情報や教員研修に関する情報についての期待値が高かった。

このように障害のある子どもの教育の推進・支援を充実させていく上で、Web サイト等による情報提供や理解啓発活動は、重要な役割を果たすようになり、実際に指導を行う教員も教育関係機関等に多くの情報を求めている。

5. 本研究の目的

近年の急速な社会の情報化の進展に伴い、障害のある児童生徒の教育に関する情報提供体制を整備していくことは、重要な課題のひとつとなっている(渡邊・中村・渡邊, 2005)。しかし、2007年に特別支援教育が施行された後、教員の現職教育において中心的な役割を担う都道府県教育センターの Web サイトについて、その情報提供体制の現状は明らかにされていない。本研究の課題として、障害のある子どもの教育に関する情報提供体制を明確にし、今後どのようにしていく必要があるのかを明らかにすることがある。

そこで本研究では、全都道府県教育センターの Web サイトに関して、上記で最も回答が多かった「学習教材」、「指導方法」、「研修講座・研究会情報」に着目し、新たに特別支援教育の施行から関心が高まったと考えられる「個別の指導計画」、「個別の教育支援計画」に関する項目を加えながら全国の教育センターWeb サイトで提供している情報の具体的な内容を閲覧分析し、教育センターWeb サイトの情報提供の現状と今後の課題について検討することを目的とした。

II. 方法

1. 調査対象

国立特別支援教育総合研究所のリンク集に記載のある都道府県教育センター(58機関)を対象とした。内訳は、北海道・東北地区(8機関)、関東・甲信越地区(13機関)、東海・北陸地区(9機関)、近畿地区(8機関)、中国・四国地区(10機関)、九州地区(10機関)である。これらの機関のうち、47機関は都道府県教育センターであり、11機関は市のセンターである。また特別支援教育センターは58機関中9機関であった(平成25年度12月時点)。

2. 調査期間

2013年10月～11月に、全都道府県教育センターの Web サイトを閲覧分析した。

3. 調査内容及び方法

(1) Web サイトの開設率

全国の教育センターWeb サイトの開設率の調査については、国立特別支援教育総合研究所の Web サイトからリンクをたどってログインし、調査を行った。見つからなかった場合は検

索エンジンを用いて、センター名をキーワードとして検索した。

(2) Web サイト上での情報提供項目と評価基準

Web サイト上に記載のある情報のうち、設定した 8 つの項目（表 1）について、独自の評価基準（表 2）を用いて分析を行った。閲覧して見当たらなかったものはサイト内検索を行い、該当しない場合は「項目なし」とし、パスワードや ID が必要となる項目については分析対象外とした。

表 1 Web サイト上での情報提供項目

①教育相談（連絡先、相談方法、相談内容）
②研修講座（講座名、講座内容）
③指導案（記入例、様式、事例、実践の記録）
④個別の指導計画（概念、記入例、様式、ハンドブック、事例、実践の記録）
⑤個別の教育支援計画（概念、記入例、様式、ハンドブック、事例、実践の記録）
⑥学習教材・教具（写真・文章で紹介・指導案・実践の記録）

表 2 情報提供項目の評価基準

①教育相談に関する項目				
1:項目なし	2:連絡先の記載	3:相談方法の記載	4:相談内容の記載	5:相談事例の記載
②講座・研修に関する項目				
1:項目なし	2:講座名の記載	3:講座内容の記載		
③指導案に関する項目				
1:項目なし	2:書き方の記載(記入例、様式、等含む)	3:指導案の事例がある	4:指導の事例と実践の記録がある	
④個別の指導計画に関する項目				
1:項目なし	2:概念等の意味書き	3:書き方の記載(記入例、様式、等含む)	4:指導計画の事例	5:指導計画の事例と実践の記録
⑤個別の教育支援計画に関する項目				
1:項目なし	2:概念等の意味書き	3:書き方の記載(記入例、様式、等含む)	4:指導計画の事例	5:指導計画の事例と実践の記録
⑥教材・教具に関する項目				
1:項目なし	2:教材・教具の紹介	3:指導案や実践の記録		

(3) Web サイトにおける情報収集の活用

全教育センターWeb サイトの更新情報や検索機能の有無を調査し、更新状況については表 3 の評価基準を用いて分析を行った。

表3 Webサイトの更新状況の評価基準

1:記載なし	2:半年以上 前の更新	3:半年以内に 更新	4:1ヶ月以内に 更新	5:2週間以内に 更新	6:1週間以内に 更新
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Ⅲ. 結果

1. Webサイトの開設率

(1) 全国のエducationセンターWebサイト開設の有無

調査の結果、全国のエducationセンター58機関のうち、センター独自のWebサイトを開設していたセンターは54機関で、開設率は93.1%であった。残りの4機関(6.9%)では独自にサイトは開設されていなかったが、教育委員会のWebサイトの項目にページを設置するなどして情報提供を行っていた。全国のすべてのセンターが何らかの形でWebサイトによる情報提供を行っていた。

(2) 全国のエducationセンターWebサイトの項目別開設率

全国のエducationセンターWebサイトの各項目の開設率は表4の通りである。開設率が9割を超え、ほとんどのセンターで開設されていた項目は2項目あり、①教育相談に関する項目が91.4%(58機関中53機関)、②講座・研修等に関する項目が全体の94.8%(58機関中55機関)であった。次いで開設率が7割を超えた項目は③指導案に関する項目が70.7%(58機関中41機関)、⑥教材・教具に関する項目が70.7%(58機関中41機関)であった。最も少なかった項目は④個別の指導計画に関する項目が51.7%(58機関中30機関)、⑤個別の教育支援計画に関する項目が51.7%(58機関中30機関)であった。

表4 全国のエducationセンターWebサイトの項目別開設率 (n=58)

項目	機関数	開設率 (%)
① 教育相談	53	91.4%
② 講座・研修	55	94.8%
③ 指導案	41	70.7%
④ 個別の指導計画	30	51.7%
⑤ 個別の教育支援計画	30	51.7%
⑥ 教材・教具	41	70.7%

(3) 全国のエducationセンターWebサイトの項目別情報公開率

全国のエducationセンターWebサイトには閲覧制限されている項目やページがある。項目別の情報公開率は表5の通りである。①教育相談に関する項目、②研修講座に関する項目、④個別の指導計画に関する項目、⑤個別の教育支援計画は情報公開率が95%以上と高い割合を示していた。③指導案に関する項目、⑥教材・教具に関する項目は他の項目に比べ低い割合を示した。

表 5 全国の教育センターWeb サイトの項目別情報公開率 (n=58)

項目	開設数	閲覧可能数	閲覧可能率 (%)
① 教育相談	53	53	100.0%
② 講修・講座	55	53	96.4%
③ 指導案	41	27	65.9%
④ 個別の指導計画	30	29	96.7%
⑤ 個別の教育支援計画	30	29	96.7%
⑥ 教材・教具	41	32	78.0%

2. Web サイト上での情報提供

(1) 項目別の情報提供内容

教育センターWeb サイトの情報提供内容について、評価基準を基に項目別に分析を行った。以下は項目ごとの情報提供内容の分析結果である。

①教育相談に関する項目の情報提供内容

教育相談に関する項目の情報提供内容について調査した結果が表 6 である。8 割以上のセンターで教育相談に関して電話番号又はメールアドレス等の連絡先や電話相談、来所相談、メール相談等の相談方法案内、相談内容の詳細な記載があった。加えて、相談事例が記載されていた教育センターは 58 機関中 3 機関 (5.2%) であり少数ではあるが、相談者 (児) の課題状況、相談経過、Q & A などの質疑応答等、詳細な記載があった。

表 6 教育相談の情報提供内容 (n=53)

評価段階	機関数	割合 (%)
1: 項目なし	5	8.6%
2: 連絡先の記載	0	0.0%
3: 相談方法の記載	5	8.6%
4: 相談内容の記載	45	77.6%
5: 相談事例の記載	3	5.2%

②講座・研修に関する項目の情報提供内容

講座・研修に関する項目の情報提供の内容を調査した結果が表 7 である。全国の教育センターWeb サイトのうち 8.9% (58 機関中 5 機関) は講座・研修のみの記載であった。85.7% (58 機関中 48 機関) は講座・研修名に加え、講座・研修のねらい又は目的、内容、対象校種等の記載があり、中には受講後の受講者の声やタイムスケジュール等、より詳しい記載をしているセンターもあった。

表 7 講座・研修の情報提供内容 (n=58)

評価段階	機関数	割合 (%)
1: 項目なし	3	5.4%
2: 講座・研修名の記載	5	8.9%
3: 講座研修内容の記載	48	85.7%

③指導案に関する項目の情報提供内容

指導案に関する項目の情報提供の内容を調査した結果が表 8 である。そのうち最も高い割合であったのは、指導案の事例の記載で 45.5%（44 機関中 20 機関）であった。また、指導案の事例に加えて実際に授業実践を行った後の反省点や評価、子どもの様子といった実践の記録の記載があった機関が 13.6%（44 機関中 6 機関）であった。全体の約 6 割のセンターで各都道府県の教職員によって作成された指導案が記載され、都道府県民や教員に限らず誰もが Web 上で閲覧することができるようになっている。ほとんどのセンターで指導案が校種毎に分類され、データベースとして検索を掛けることが可能であった。

表 8 指導案の情報提供内容（n=44）

評価段階	機関数	割合（%）
1：項目なし	17	38.6%
2：書き方等の記載	1	2.3%
3：事例の記載	20	45.5%
4：事例と実践の記録の記載	6	13.6%

④個別の指導計画に関する項目の情報提供内容

個別の指導計画に関する項目の情報提供の内容を調査した結果が表 9 である。記載があったもののうち、最も高い割合であったのは、個別の指導計画の書き方、記入例、様式等の記載で 36.8%（57 機関中 21 機関）であった。次に個別の指導計画の概念や用語の解説のような意味書きの記載があったものは、8.8%（57 機関中 5 機関）であった。指導計画の事例や実践の記録の記載があったのを合わせても約 5%（57 機関中 3 機関）であり、ごく少数である。全体的に他の項目と比べると項目なしの割合が高くなっていた。

表 9 個別の指導計画の情報提供内容（n=57）

評価段階	機関数	割合（%）
1：項目なし	28	49.1%
2：概念等の記載	5	8.8%
3：書き方等の記載	21	36.8%
4：事例の記載	2	3.5%
5：事例と実践の記録の記載	1	1.8%

⑤個別の教育支援計画に関する項目の情報提供内容

個別の教育支援計画に関する項目の情報提供の内容を調査した結果が表 10 である。記載があったもののうち最も高い割合を示したのは個別の教育支援計画の書き方、記入例、様式等の記載で 31.6%（57 機関中 18 機関）であった。次に個別の教育支援計画の概念や用語の解説のような意味書きの記載があったのが 15.8%（57 機関中 9 機関）であった。教育支援計画の事例や実践の記録の記載があったのは合わせても約 3%（57 機関中 2 機関）であり、前述の個別の指導計画よりも低い値を示している。また個別の指導計画と同様に他の項目と比べると項目なしの割合が高く、各評価の割合については、個別の指導計画と近い値となっていた。

表 10 個別の教育支援計画の情報提供内容 (n=57)

評価段階	機関数	割合 (%)
1: 項目なし	28	49.1%
2: 概念等の記載	9	15.8%
3: 書き方等の記載	18	31.6%
4: 事例の記載	1	1.8%
5: 事例と実践の記録の記載	1	1.8%

⑥教材・教具に関する項目の情報提供内容

教材・教具に関する項目の情報提供の内容を調査した結果が表 11 である。記載があったもののうち、自作や既成品を含む教材・教具が写真や画像、ビデオ、文章等で紹介されている機関が 59.2% (49 機関中 29 機関) であった。特別支援教育の分野では各都道府県の教職員の自作の教材・教具の作り方や使い方、対象児などの記載があるセンターもあった。加えて指導案やそれらの教材・教具を使った授業実践等の記録又は指導案が共に記載されている機関が 6.1% (49 機関中 3 機関) であった。全国のエducationセンター58 機関のうち、32 機関(65.3%)で教職員に限らず誰もが Web サイト上で閲覧することが可能であった。

表 11 教材・教具の情報提供内容 (n=49)

評価段階	機関数	割合 (%)
1: 項目なし	17	34.7%
2: 写真や文章等での紹介	29	59.2%
3: 指導案又は 実践の記録の記載	3	6.1%

3. Web サイト上における提供情報の活用

(1) 教育センターWeb サイトにおける更新状況の情報提供

①Web サイトの更新情報提供の有無

調査の結果、全国のエducationセンターのうち、Web サイトのトップページに新着情報やお知らせなどにおいて更新日の記載(最終更新日の記載を含む)をしていたのは 86.2% (58 機関中 50 機関) であった。ほとんどのセンターでは新着情報、更新情報のお知らせを Web サイトのTOP ページに設けていた。全体の 13.8% (58 機関中 8 機関) の機関では最終更新日などの更新状況は記載されていない状況にあった。

②Web サイトの更新状況と平均差日

Web サイトに更新日の記載があった機関の更新状況をまとめたものが表 12 である。最も高い値を示したのは閲覧調査日から最終更新日が 1 週間以内の機関で全体の 31.0% である。半年以内に更新日の記載があった機関は 27.6% であった。次いで 1 ヶ月以内は 15.5%、次いで 2 週間以内は 10.3% となっている。尚、1 週間以内に更新があったもののうち、差日が 0 であった機関もあった。一方で調査閲覧日から記載されている最終更新日まで 214 日の差日があり、ほとんど更新されていない機関もあった。また、全体の差日の平均日数等は表 13 の通りである。全体の平均差日は 26.2 日、標準偏差は 37.2、最大値は 214 日、最小値は 0 日であり、センターによって更新状況、更新頻度は大きく異なっていた。

表 12 Web サイトの更新情報 (n=58)

評価段数	機関数	割合 (%)
1: 項目なし	8	13.8%
2: 半年以上	2	1.7%
3: 半年以内	16	27.6%
4: 1 ヶ月以内	9	15.5%
5: 2 週間以内	6	10.3%
6: 1 週間以内	17	31.0%

表 13 Web サイトの更新差日 (n=50)

平均	SD	最大値	最小値
26.2	37.2	214	0

(2) 教育センターWeb サイトの検索機能の有無

調査の結果、センターWeb サイトに検索機能があるサイトは 65.5% (58 機関中 38 機関) であった。検索機能はほとんどの Web サイト TOP ページに設置され、サイト内のキーワードを検索するサイト内検索を行うことができた。尚、ここでは研究論文や文献をまとめたデータベース等のみの検索機能は含めないこととする。

IV. 考察

1. Web サイトの開設率、項目開設率、項目別情報公開率

Web サイトの開設率について、全国の教育センターが独自の Web サイトを開設している割合は 9 割を超え、教育委員会等の公的機関の Web サイトのページに教育センターの Web ページが設置されているものを合わせると、全国すべての教育センターが何らかの形で Web サイトによる情報提供をしていた。このことから、多くの教育センターが情報の発信や情報提供を行う術としてインターネットの有効性を認めていると推測できる。今後、教育センターの情報提供の手段として、インターネットの Web サイトを有効に活用することによって、より多くの人に多くの情報を発信することが可能となるであろう。

また、Web サイトの項目開設率について項目別に見てみると、項目間で開設率に差が見られた。教育相談や講座・研修項目は全センターで 9 割以上の開設率があり、他の項目に比べかなり高い値を示し充実した内容を提供していた。全国的に教育センターは児童生徒や保護者、教職員の為の教育相談事業、指導力や専門性の向上を目指して行われる講座・研修事業に力を入れ、それらが Web サイト上に反映されたものと思われる。

次に開設率が高かったのは 7 割以上の開設率を示した指導案、教材・教具の項目である。指導案の項目では各都道府県の教員が作成した指導案の事例のデータベースや書き方、様式など指導案の作成に関わる情報が提供されていた。教員が日々の授業実践で指導方法を模索したり、指導案の作成の際に参考にしたり、役立つような具体的情報を求めている背景から、多くの機関で開設がされているのではないかと考えられる。教材・教具の項目も同じことが言えるが、その中でもプロジェクターや電子黒板等の ICT 機器の紹介やそれらを活用した授

業実践例などの情報提供がされているセンターも少なくなかった。特別支援教育の分野ではこれに加え、教員自作の教材・教具の作り方や使用方法などの情報が提供されていた。

最も低い値を示したのは個別の指導計画、個別の教育支援計画に関する項目で、開設率はどちらも 50%で半数程度であった。特別支援教育に発達障害が含まれるようになった今、特別支援学校のみならず普通学校においてもこれらに関する情報の需要は以前より高まっていると推測できる。そのため、教員の現職教育において中心的な役割を担う教育センターは、これらを始めとする特別支援教育に関する情報の提供を充実させる必要があるだろう。

Web サイトの項目別情報公開率について、センターの Web サイトに開設されている項目やページが、都道府県民や教育関係者でなくとも一般に制限なく閲覧できる割合を求めたものを情報公開率としている。全センターのうち、95%以上のセンターで制限なく閲覧できる項目は、①教育相談、②講座・研修、④個別の指導計画、⑤個別の教育支援計画に関する項目であり、その一方で、③指導案に関する項目は 65.9%、⑥教材・教具に関する項目は 78.0%と他の項目と比べ低い割合となっていた。これらは実際に現職の教員が作成したものや児童生徒等の個人情報が含まれることから、情報の流出等を懸念し部分的に閲覧制限をしたり、パスワード等を設定しているものと考えられる。このようにサイトを運営する中で情報提供を行う際の個人情報の配慮はこれからも慎重に行い、管理体制を強化していかなければならないだろう。

2. Web サイト上での情報提供内容

(1) 「学習教材」、「指導方法」、「研修講座・研究会情報」について

教育相談に関する項目を開設している教育センターは 9 割を超え、これらのセンターで提供している内容をみると、連絡先のみ記載をしているセンターはひとつもなく、連絡先と相談方法は一緒に記載されていた。加えて相談内容も記載されているセンターがほとんどであることから、教育相談に関する情報提供は連絡先・相談方法・相談内容が主な内容であると思われる。少数ではあるが相談者（児）の課題状況、相談経過、質疑応答等の具体的な相談事例を記載している Web サイトもあり、相談者（児）にとっては、教育相談のおおよその流れがわかったり、相談したいけれど行きづらい人にとっては実際に相談をしなくても悩みや相談事について情報を得ることができるようになっている。一部の教育センターでは実際に取り組まれていることから、プライバシーの面で個人情報の管理を強化しながら具体的事例を記載していくことも今後可能ではないだろうか。

講座・研修に関する項目を開設している教育センターについても 9 割を超え、これらのセンターで提供している内容をみると 8 割を超えるセンターでは講座・研修に関して講座名、具体的な講座内容が記載されていた。教員向けの研修については年間の研修実施要項の冊子が Web 上で閲覧できる形をとっているセンターが多かった。講座名や内容以外にも、目的、対象校種、タイムスケジュール、研修の記録等、センターによって提供している情報は様々であった。今後、利用者にとって需要のある情報がどういったものかを判断し、各センターは管理体制を整え情報を整理していかなければならないだろう。

指導案に関する項目を開設している教育センターは約 7 割と、他の項目に比べて開設率は低く、また公開率も低い状態である。一方で、開設し公開しているセンターで提供している内容を見てみると、最も多いのが指導案の事例の記載であった。各都道府県の教員が作成し

た指導案がデータベース化され、校種別、教科・領域別に分類されているものやキーワード検索ができるもの、特別支援教育の分野においては障害種別に分類しているセンターもあった。これらに加えて授業実践の記録が記載されているセンターもあり、児童生徒の学習中の様子やノート、掲示物、板書等具体的な実践記録を掲載しているセンターもあるが少数であった。先行研究（渡邊・中村・渡邊, 2005）においても、特別支援教育に携わる教員は実際の指導に役立つような具体的な指導方法の情報を求めていることが明らかになっていることから、こうした項目についての開設に加え、さらに具体的な情報を提供していくことが望ましいのではないだろうか。また、指導案は他の項目と比べると、教員などの教育関係者等の需要が高いことが推測される為、パスワード等で閲覧制限をしながら情報の安全性も同時に高めていくことが望ましいと考える。以下の全ての項目も同様であるが、今回の調査では、パスワード等の制限により閲覧が不可能で分析対象外となったセンターがある。今回の調査において分析対象外となったセンターが調査対象のセンターよりも具体的に充実した内容を提供している可能性も考えられるため、今後は、分析対象外となったセンターの項目の調査も行っていく必要があると考える。

(2) 特別支援教育に関する項目「個別の指導計画」、「個別的教育支援計画」について

個別の指導計画に関する項目を開設しているセンターは約 5 割と半数であり、これらのセンターで提供している内容を見てみると、最も多いものは指導計画の様式や記入例、指導計画作成の為のハンドブックなどの書き方の記載である。指導案の項目とは異なり、事例の記載があったセンターは全体の 3.5%であり、さらに実践の記録の記載があったのは 1.8%と低い値を示していた。個別の指導計画に関する項目を開設していても、指導計画はどのようなものなのかというような概念の説明や作成する際の手順、記入例などの内容にとどまっている。教員がセンターに求める実際の学習指導に役立つ情報とは、指導案のみならず個別の指導計画も含まれるのではないだろうか。また特別支援学校のみならず普通学校においても特別支援教育が行われるようになり、今後ますます特別支援教育に関する情報の需要が高まってくるであろう。まずは開設していないセンターに項目を開設し、情報を発信しているセンターを増やしていくべきではないかと考える。

また、個別的教育支援計画に関する項目を開設しているセンターについても約 5 割と、個別の指導計画と同様の結果となった。また情報提供内容は概念の説明が 15.8%、様式や記入例、指導計画作成の為のハンドブックなどの書き方の記載があったものは 31.6%、事例と実践の記録を合わせても 3.6%と、内容の割合も個別の指導計画と似た割合となった。個別の指導計画と教育支援計画の記載がまとめて記載されるケースが多いことから、このような結果になったのと考えられる。しかし、個別的教育支援計画については、障害のある幼児児童生徒一人一人の自立と社会参加に向け、乳幼児から卒業後の就労をも見据える一貫した支援をすることを目的としているため、医療、福祉、労働関係機関等の各分野の密接な連携と協力が必要となり、単に教育機関のみで策定できるものではない。各都道府県ごとに指定の教育支援計画の様式や書き方等があれば関係機関間で共通の視点をもって支援を行うことができるのではないだろうか。教育支援計画に関しては提供する情報の内容の具体性だけでなく、各関係機関にリンクさせるなどして情報の公開範囲を広げ、有効性を高める方法を模索していくべきだと考える。

教材・教具に関する項目を開設しているセンターは約 7 割であったが、指導案の項目の次に閲覧が制限されている割合が高い項目である。教育センターで提供している情報をみると、写真や文章等で教材や教具の紹介をしているセンターが全体の約 6 割程度あった。特別支援教育の分野では各都道府県の教員が作成した自作の教材教具の作り方や使用方法等が掲載されているものや、実際の授業で利用できるタブレット端末のアプリケーションなどの紹介があった。これらは児童生徒の障害の程度や学習の状態に合わせて個別の対応を行う特別支援教育ならではの項目であると思われる。普通学校で参考となるものについては ICT 機器や理科の授業で使用する実験器具等の紹介が目立った。これらの紹介に加えて指導案や実践の記録の記載があったセンターは 34.7%あり、ICT 機器を活用した授業の動画を掲載したり、自作の教材教具を使用した授業での様子や課題等の記載など詳細な記録があった。教材・教具に関しての情報は教員にとっても実際の学習指導の参考になり、すぐに役立つといった点で教員が教育センターに対して求めている情報でもあることから、こうした項目が開設されるだけでなく、実践の記録、指導案とともに記載するなど提供情報をより具体的にし、活用しやすい情報提供の方法を考えていくべきだと考える。

3. Web サイトにおける更新状況の情報提供、更新状況と差日、検索機能の有無

調査の結果、更新情報を提供していたのは全教育センターのうち 8 割超え、Web サイト全体の最終更新日を記載しているセンターや、お知らせ・新着情報とともに更新日を記載しているセンターなど、表示方法については各センターごとに様々であった。どのような形で表示するにしろ、情報の更新日というのは利用者が情報収集するにあたり、その情報が信用性のあるものか見極める判断材料のひとつになると考えられる。今後、利用者にとって活用しやすく信用性の高い情報発信を行う為に、Web サイトの更新情報を積極的に記載していくべきではないだろうか。

更新情報の記載があった機関のうち、更新状況を見てみると、閲覧日から 1 週間以内に更新されていた機関は全体の約 3 割、2 週間以内の更新を合わせても 4 割程度であり、更新状況は全体的に低い結果となった。毎日更新しているセンターもある中で 1 年以上前から更新されていないセンターもあり、長期間にわたって情報の更新もないとすれば、閲覧者の信用が得られなくなるのは明らかである。情報発信の手段として Web サイトの有効性、信用性を高めていく為には、担当者の任命や年度毎の引き継ぎ等をはじめとした情報管理体制の構築も同時に行う必要があると考える。誰かしらが片手間に情報の更新や管理を行うとすれば、負担が大きすぎるのではないだろうか。

検索機能の有無に関して、利用者が情報を収集するために最初に行うことは、キーワードを入力して検索し情報を絞り込むことではないだろうか。この機能が検索機能である。教育センターの Web サイトを見ていくとこのような検索機能があるセンターは 65.5%、無いセンターは 34.5%という結果となっていた。この機能を教育センターの Web サイトにも設置することでサイト内でさらに求めている情報を絞り込むことができ、情報収集の効率があがると考えられる。今後検索機能を取り入れていくことで更に利用者にとって活用しやすい Web サイトになるだろう。

V. 結論

本研究では、障害のある子どもの教育に関する情報提供体制を明確にし、今後どのようにしていく必要があるのかを明らかにすることを課題とした。そのため、教員の現職教育において中心的な役割を担う都道府県の教育センターの Web サイトで提供している情報の具体的な内容を調べ、教育センターWeb サイトの情報提供の現状と課題について検討した。

Web サイトの開設に関しては、独自の Web サイトを開設しているセンターは 93.1%、教育委員会等の Web サイトにページを設けるなどして情報提供を行っていたセンターは 6.9% であり、全国すべての教育センターがいずれかの形で Web サイトによる情報提供を行っていた。このことから多くのセンターが情報提供を行う手段として、インターネットの有効性を認めていると推測できる。

しかし、その Web サイトで提供されている情報の内容に関しては、教育相談、講座・研修に関する項目は比較的充実した内容となっていたが、その他の指導案、個別の指導計画、個別の教育支援計画、教材・教具に関する項目の内容は充実しているとは言い難い状況にあった。特別支援教育に携わる教員は実際の指導に役立つような、具体的な指導方法等の情報を求めていることが明らかになっているため、今後は特に特別支援教育に関する項目の開設率を上げていくことや、より具体的で活用しやすい情報提供を行っていくことが今後の課題となるだろう。また、各センターがどのような情報を提供していくのか、利用者にとって需要のある情報かどうかを判断し、管理体制を整え、情報を整理していくことで、Web サイトの有用性も高まりインターネットにおける情報発信がより充実したものになるのではないだろうか。

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http://www.nise.go.jp/kenshuka/josa/kankobutsu/pub_c/c-51.html

SHORT PAPER

The Current Situation and Issues of Education Centers' Information Provision regarding Special Needs Education: Information Provision via Websites

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ABSTRACT

Education Centers, placed in each prefecture, play a major role in teacher practice in Japan. This study examined the contents of information for teachers on their websites to clarify the current situation and the limitations regarding their information provision by accessing to the websites. The results show that the webpages about teaching consultation and workshop/seminars were contained in almost all sites, but the other information pages (i.e. teaching plan, individualized teaching plan, individualized support plan, teaching materials/equipment) were fewer in comparison. The results imply calls for more various and detailed information provision for teachers.

<Key-words>

Database, teaching materials, teaching method, seminar, teaching consultation

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 - ② 短報：斬新性があり、速やかな掲載を希望する研究報告。
 - ③ 症例報告：会員・読者にとって示唆に富む、興味ある症例報告。
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 Das (1969)
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 文部科学省 (2010)
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〈表記例〉

- 1) John Maynard Smith, Edward J. Feil & Noel H. Smith(2000) Population structure and evolutionary dynamics of pathogenic bacteria. *BioEssays*, 22, 1115-1122.
- 2) Moonjung Kim, Heajin Kwon, Changwan Han, Noriko Sasaki & Yasuyoshi Sekita (2012) A comparative study on factor analysis of the disabled employment between Japan and Korea. *Asian Journal of Human Services*, 3, 153-166.
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<ex>

Das (1969)

(Kim, 2005)

Miyake, Friedman, Emerson et al. (2000)

(Miyake, Friedman, Emerson et al. , 2000)

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- 1) John Maynard Smith, Edward J. Feil & Noel H. Smith(2000) Population structure and evolutionary dynamics of pathogenic bacteria. *BioEssays*, 22, 1115-1122.
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